Iowa Department of Agriculture and Land Stewardship

State Point of Contact:

Stephanie Groom – Grant Administrator
Iowa Department of Agriculture and Land Stewardship
Phone: (515) 281-3338
Email: Stephanie.groom@iowaagriculture.gov

Specialty Crop Block Grant Program – Farm Bill
12-25-B-1228

Final Performance Report
May 1, 2015

Table of Contents

USDA Final Performance Report for 2011-12 IDALS SCBG

Submitted by:
Ann Marie VanDerZanden, on behalf of the Board of Directors, Iowa Nursery and Landscape Association
December 4, 2013

PROJECT TITLE

Expanding Educational Programming for Iowa's Green Industry Professionals through a Webinar Series and Accompanying On-line Modules

PROJECT SUMMARY

Surveys of the Iowa Nursery and Landscape Association (INLA) membership in 2008 and 2010 showed that members were interested in educational programming beyond the online training provided to prepare for the Iowa Certified Nursery Professional exam. Responses to the survey also showed that members were interested in program delivery methods that were flexible and that could accommodate their schedules. The purpose of this project was to develop a series of five emerging issues webinars for the INLA membership on topics not covered in the nursery professional training program. In addition to the live and archived versions of the webinars, online training modules were created to supplement content covered in the webinars. These five webinars were added to four webinars developed using funding from a 2010-11 SCBG, for a total of nine emerging issues webinars now posted on the INLA website. Although attendance to the live sessions of both the 2011 and 2012 webinars were lower than anticipated, the webinars have been accessed significantly in the 32 or 18 months, respectively, since they were first posted on the INLA website (Table 1).

Live Webinar Date	Webinar Topic	No. attendees Live Broadcast	Number of Archived Webinar Downloads as of 1 July 2013
16 Feb 2011	Sustainable Sites Initiative	8	109
2 Mar 2011	Stormwater: Best Management Practices	9	85
9 Mar 2011	Rain Gardens	10	281
23 Mar 2011	Updating your Marketing Approach	5	2
1 Feb 2012	Sustainable Landscape Management	**7**	44
8 Feb 2012	Landscape Planting Best Practices	4	12
15 Feb 2012	Post Planting Care and Establishment	9	18
29 Feb 2012	Hardscape Trends and Design Ideas	8	50
7 Mar 2012	Permeable Pavers	7	72

Table 1.

This project capitalized on partners in the green industry to present the webinars, and there was a mix of Iowa State University professors and green industry experts. The data collected from webinar participants on achievement of Expected Measureable Outcomes was analyzed and is reported in the Goals and Outcomes Achieved section of this report.

PROJECT APPROACH

In early fall 2011 webinar topics were identified in consultation with the INLA Board of Directors. By late fall 2011 the speakers were identified and the webinar series was promoted. Webinars were completed between February 2012 and March 2012. Participants completed a brief survey at the end of the five week period regarding three measureable outcomes (1) participants having a better understanding of the topic covered in the webinar; 2) participants implement one or more practices/concepts discussed in the webinar; and 3) the nursery or landscape company the participant represents is able to increase their profitability by better meeting customer needs or adding new customers, as well as company demographics and satisfaction with the webinar series.

After the webinars were completed archived versions were posted to the INLA website and access information shared with the INLA membership. Concurrently supporting modules for each webinar were created. Each module includes a link to the archived webinar, additional resources including links to industry websites, and a set of review questions for participants to check their learning. These five webinar-focused modules are located on the Iowa State University Blackboard Learn learning management system on the same site as the other 18 training modules that support the INLA Iowa Certified Nursery Professional exam. Access information to the online modules is distributed to the INLA membership regularly.

GOALS AND OUTCOMES ACHIEVED

The goal of this project centered on providing educational programming for INLA members beyond preparation for the Iowa Certified Nursery Professional exam. Results to the survey on knowledge gained, implementation of a new practice or concept, and expected increase to company profitability are shown in Table 2. The survey response rate for the 2012 webinar series was 55.5%. Participant responses suggest the webinars did provide an advanced learning opportunity and that they will be able to directly apply what they learned from the webinars to improve their profitability.

As a result of this webinar …	**Mean Rating (n=17)**
I have gained new knowledge about the topic covered.	3.37[z]
I am likely to implement one or more new practices/concepts I learned.	3.08
I believe I can increase profitability for my employer/company.	2.97

[z] Scale where: 1=strongly disagree; 2=disagree; 3=agree; and 4=strongly agree.

Table 2.

A final goal of this project was to present the results at a professional/scientific meeting and to publish a peer-reviewed article. Both of these goals were accomplished and the citations are below:

Presentation

Jones, M. and A.M. VanDerZanden. 2011. Application of computer based technologies for turfgrass and landscape industry extension. HortScience 46(9): S374

Publication

VanDerZanden, A.M. 2013. Asynchronous continuing education for Iowa's Green Industry Professionals. HortTechnology 23(5): 677-682.

BENEFICIARIES

The largest beneficiaries of this project include the membership of the Iowa Nursery and Landscape Association membership. As show in Table 1, access to the archived version of the webinars is significant and continues well beyond the live offering. When the results from those who participated in the live version are extrapolated to those who have completed the archived version, a viable conclusion would be that those roughly 190 INLA

members will also have gained more knowledge about the topic, and that they will be likely to implement one or more new practices they learned about. This is a plausible conclusion since the participants attending the live session, and those accessing the archived version, are from the same overall population.

Further beneficiaries include Extension professionals who are working with professional industry organizations. Through the presentation at the American Society for Horticultural Science meeting and the publication in HortTechnology, Extension professionals across the United States have been made aware of this webinar-based continuing education program and have the ability to create a similar program for their stakeholders.

LESSONS LEARNED

Although we consulted with the INLA membership on a preferred day of the week, and time of day to offer the webinars, attendance to the live broadcasts was significantly less than anticipated. However, based on the number of times the webinars have been accessed in the 18 months after they were posted on the website it is clear the membership was interested in the topics and willing to access them asynchronously. This suggests that capturing presentations and posting them online would be an equally effective was as coordinating a live broadcast. The supporting educational modules that were created for each webinar continue to be accessed by INLA members. INLA will monitor what components of the modules receive the most hits and may chose to expand those sections.

CONTACT PERSON

Ann Marie VanDerZanden
Iowa State University
vanderza@iastate.edu
(515) 294-7555

Joan O'Brien
INLA Executive Director
joano@agribiz.org]
(515) 262-8323

ADDITIONAL INFORMATION

None

FINAL REPORT CHECKLIST

The final report will be posted on the SCBGP-FB website and represents an important vehicle for sharing project findings with Federal and State agencies and the public. Final performance reports must illustrate the completion of the activities and outcomes associated with each project within the grant agreement.

PROJECT REPORT(S)

PROJECT TITLE

Building Capacity for Southwest Iowa Local Food Producers to Increase Specialty Crop Competitiveness in the Region

PROJECT SUMMARY

- ☐ Provide a background for the initial purpose of the project, which includes the specific issue, problem, or need that was addressed by this project.
- ☐ Describe the importance and timeliness of the project.
- ☐ If the project built on a previously funded project with the SCBGP or SCBGP-FB describe how this project complemented and enhanced previously completed work.

Abstract/Background

In order to support the ongoing local food system development work in southwest Iowa, regional stakeholder focus groups identified a need for a producers "association" to support more scaled up specialty crop production, aggregation and distribution. A lack of infrastructure and culturally relevant capacity building programs throughout this region has inhibited growth and market expansion for specialty crops. Region-wide producer meetings had already been started and a self-appointed leadership team, with representatives from all 8 participating counties, had met to take the formative steps in the process. Technical assistance providers were needed to complete the formation of the association. Experts were hired to work with the leadership team and the regional local food producers to create a sustainable specialty crop value chain (a value chain is a supply chain that is designed to link supply with markets efficiently, but to do so while promoting certain core values) for southwest Iowa and nearby metropolitan markets. The end result was intended to be a legally formed group that supports specialty crop production, aggregation and distribution for greater economic development within the food-shed. The group was to have a mission statement, core values, a business plan, and a clearly defined role in the regional food system; including an elected board and/or officers.

Project Purpose

The development of an "association" of local food producers in southwest Iowa was to provide capacity for farmers, consumers and wholesale buyers to create stronger and more efficient local food systems in the region; a food system based in specialty crops. During 2009 and 2010 the Regional Food System Working Group (RFSWG) and SWIFFI hosted focus groups throughout southwest Iowa with local food producers, buyers, community stakeholders and leaders to identify strengths, weaknesses, opportunities and threats in the local food system. These focus groups culminated in a large multi-county meeting in December of 2010 to share the commonalities of the regional meetings. The common thread amongst all local food producers, community stakeholders, buyers and consumers was the need for an "association" of some type to facilitate greater connectivity between specialty crop producers and buyers throughout the eight-county region and the greater Omaha metropolitan area. This group self-selected a leadership team to continue the development process and identified forms the group could take, and services the group could provide. This team, named Lone Tree Foods, worked closely with GHRCD. Meetings for both the leadership team and the multi-county meetings were facilitated by SWIFFI. Lone Tree Foods was intended to be a tool to help those specialty crop farmers interested in scaling-up to reach capacity and also help recruit new and beginning specialty crop farmers into the local food system. Lone Tree Foods was meant to increase competitiveness of specialty crops in the local food system by increasing accessibility for wholesale buyers and individual consumers. The Building Capacity for Southwest Iowa Local Food Producers to Increase Specialty Crop Competitiveness in the Region project would provide technical support and capacity development to the "association" in order to create a strong, sustainable, program that would be self-sustaining and resilient.

NOTE: This does not build on a previously funded SCBG project and is not funded by another program. Meeting facilitation and development has been underwritten by Golden Hills RC&D Local Food Program from existing funds. This proposal is specifically to enhance the competiveness of specialty crops through the development of a well-organized and well trained "association" of local food producers.

PROJECT APPROACH

- ☐ Briefly summarize activities and tasks performed during the entire grant period. Whenever possible, describe the work accomplished in both quantitative and qualitative terms. Specifically, discuss the tasks provided in the ***Work Plan*** of the approved project proposal. Include the significant results, accomplishments, conclusions and recommendations. Include favorable or unusual developments.
- ☐ If the overall scope of the project benefitted commodities other than specialty crops, indicate how project staff ensured that funds were used to solely enhance the competitiveness of specialty crops.
- ☐ Present the significant contributions and role of project partners in the project.

Work Plan

Project Activity	Who	Timeline
Facilitate a minimum of 5 leadership team meetings	Golden Hills RC&D & leadership team	October 1, 2011 – September 31, 2013
Facilitate a minimum of 4 regional local food producer meetings	Golden Hills RC&D & leadership team	October 1, 2011 – September 31, 2013
Hire trainers for business model development	Golden Hills RC&D & leadership team	November 2011 – February 2013
Develop and distribute outreach & educational materials	Golden Hills RC&D & leadership team	October 1, 2011 – September 31, 2013
Create a legal entity to serve local food producers and increase local food aggregation and access	Golden Hills RC&D, leadership team & regional local food producers	March 2012 – September 2013
Develop & test aggregation system	Leadership team	October 1, 2011 – September 31, 2013

Activities Performed

Facilitate a minimum of 5 leadership team meetings: The leadership team successfully worked with us to design the structure of the group and the leadership team has moved into the role of an Advisory Board. The advisory board began with five committed producer members. This advisory board meets frequently via in person meetings, conference calls and farm-visits to address issues that come up regarding the aggregation system implementation. These meetings are expected to continue as needed over the next several years. Additional members will be added to the board as needed to address the needs of Lone Tree Foods. Current members have stepped up to take on some responsibilities, including research, grant writing, looking for legal counsel, reviewing financial plans, etc.

Facilitate a minimum of 4 regional local food producer meetings: More than four meetings with local food producers have been held, and several more are scheduled. Two large group meetings were held and two small group meetings were convened. These meetings helped recruit membership to the local food producers association: Lone Tree Foods. From the original five members one of has since retired, and two new members have been added.

Hire trainers for business model development: Several trainers, including Anthony Flaccavento and Carol Smith, presented material for the Advisory Board to consider in developing the business model for Lone Tree Foods.

Develop and distribute outreach & educational materials: Lone Tree Foods outreach and educational material is developed and distributed widely through stakeholders and directly to participating local food producers and professional food buyers. A website was developed and built to create awareness of Lone Tree Foods, the classes and trainings offered, to find producer members and to connect with

buyers. We attended our first public event and held a round table discussion at another event, increasing both consumer and producer awareness.

Create a legal entity to serve local food producers and increase local food aggregation and access: The Lone Tree Foods advisory board decided to remain unincorporated for the time being, though an LLC status is still being considered. However, a mission statement was established and is:

Lone Tree Foods is a groundbreaking network of local food producers in western Iowa and eastern Nebraska, dedicated to safe, sustainable, and humane production practices. As producers expand into new markets, Lone Tree Foods provides the necessary training, marketing, technical assistance and mentoring. This innovative alliance of non-profits, community colleges, restaurants and trainers work to build the capacity of our producer members. Lone Tree Foods creates systems that support increased access to locally grown and raised foods for professional food buyers. By linking resources in Iowa and Nebraska, we are bridging urban and rural communities to build a united, community-based food system.

Develop & test aggregation system: The advisory board members have all tested the aggregation system; changes are made constantly to meet the needs of the local food producers and the demands of the professional food buyers.

NOTE: These grant funds were used solely for the purpose to enhance the competitiveness of specialty crops. This is evident by the type of crops grown by producers attending meetings and that are on the Lone Tree Foods advisory board.

GOALS AND OUTCOMES ACHIEVED

- ☐ Describe the activities that were completed in order to achieve the performance goals and measurable outcomes identified in the approved project proposal or subsequent amendments.
- ☐ If outcome measures were long term, summarize the progress that has been made towards achievement.
- ☐ Provide a comparison of actual accomplishments with the goals established for the reporting period.
- ☐ Clearly convey completion of achieving outcomes by illustrating baseline data that has been gathered to date and showing the progress toward achieving set targets.
- ☐ Highlight the major successful outcomes of the project in quantifiable terms.

Expected Measurable Outcomes

Goal	Performance Measure	Benchmark	Target
Business model and business plan developed	Technical Assistance Providers Hired	A self-sufficient business (inc. financial plan) is completed	"Association" implements a 5 - 10 year financial plan that allows it to be self-

			sustaining.
Specialty crop producer outreach and education	Producer meeting/training attendance will be documented through use of sign-in sheets and progress towards scaling up documented in reporting process	All 8 counties have representation from specialty crop producers at meetings	We will plan on a minimum of 2 producers to scale up production for wholesale but will strive for 5 in the first year
Evaluate reasonable legal forms	Group Assumes a Legal Form	At least 3 producer members from each county join	Begin wholesaling and/or aggregation through the "association". We will plan on a minimum of 2 wholesale contracts but will strive for 5.

We worked with Anthony Flaccavento and Carol Smith to explore business model options. We explored examples from around the country, discussed alternative business models as well as traditional forms. A business and financial plan was reviewed and revised by the current leadership group. General consensus was that the association become an LLC or remains an unincorporated association for another year. The financial plan is also under review and fees will be implemented once the plan has been accepted by the advisory board.

Classes and trainings have been developed and offered at Iowa Western Community College to support producer's needs in developing wholesale markets. These courses have been established as a regular part of the IWCC continuing education program in green living and will continue indefinitely. These courses include:

- Seasonal Local Food Planning
- Self-Care for Farmers
- Buying and Selling Local Food on www.localdirt.com
- Good Agricultural Practices 1 (GAP) Self-Audit Certificate Program
- Good Agricultural Practices 2 (GAP) Self-Audit Certificate Program
- Crop Planning
- Scaling up Your Local Food Production
- Farm Planning Websites and Software Workshop
- Introduction to Business Plan writing for Farm Based Businesses
- Pricing Your Farm Products
- Expanding into Wholesale Local Food Sales
- Direct Marketing of Local Food

These workshops help build the required skills to assist local food producers in rural southwest Iowa make sales to professional food buyers in nearby metropolitan markets. Simultaneously these workshops assist them in building strong collaborative bonds amongst the community of local food producers and encourage participation in Lone Tree Foods. Lone Tree Foods sponsors these workshops in partnership with the Department of Sustainability at Iowa Western Community College. This partnership allows us to promote workshops to all the households in southwest Iowa and actively target the local food producers for participation.

Many producer meetings have been held and other outreach has taken place through email, social media, meetings, phone calls and word of mouth and we have expanded our membership to include 6 active producers in various Iowa counties. Two have built large hoop houses, one will be relocation to a larger plot of land next year, one has added layer chickens, one has added pastured pork, and all have scaled up and focused their production to meet wholesale specialty crop needs.

We began wholesale marketing as a group through a complied spreadsheet of weekly availability sent to potential buyers via email. Buyers then order from farmers or though the group manager and farmers deliver directly to buyers. Several thousands of dollars in sales were made by at least five of our producer members. The number of potential buyers grew from 50 to 88.

BENEFICIARIES

- ☐ Provide a description of the groups and other operations that benefited from the completion of this project's accomplishments.
- ☐ Clearly state the number of beneficiaries affected by the project's accomplishments and/or the potential economic impact of the project.

Almost 40 organizations benefit from the work of this project in that we provide new markets for local food producers, training and education for producers, marketing, outreach and connections to potential buyers, support in expanding production and markets. For example monthly stakeholder meetings were held last fall as the growing/summer market season came to an end. The numbers attending these meetings were as follows:

October – 32 November – 14 December – 15

Two GAP training sessions were held with GAP 1 participants at 15 and GAP 2 participants at 14.

In addition six food safety plans were written.

We also have increased interest in the area from potential local food producers which can increase tourism, tax base, job creation and future development of local food systems.

LESSONS LEARNED

- ☐ Offer insights into the lessons learned by the project staff as a result of completing this project. This section is meant to illustrate the positive and negative results and conclusions for the project.
- ☐ Describe unexpected outcomes or results that were an effect of implementing this project.
- ☐ If goals or outcome measures were not achieved, identify and share the lessons learned to help others expedite problem-solving.
- ☐ Lessons learned should draw on positive experiences (i.e., good ideas that improve project efficiency or save money) and negative experiences (i.e., lessons learned about what did not go well and what needs to be changed).

Problems and Delays

In undertaking this grant we have been disappointed to learn that the local food producers in southwest Iowa are less prepared to meet the increasing demand for local food than we had been aware. Great strides have been taken throughout this project to create outcomes that were of value to the farmers

and the food system. Originally after a year of meeting with producers we felt that, per their request, we were ready to form a regional food hub that could assist them in aggregation and distribution to nearby metropolitan wholesale markets. In the course of implementing this grant, it has become abundantly clear that the local farmers are less prepared than they had indicated and that significant additional groundwork has to be laid prior to the food hub being a reality. For instance: only one out of ten participating farmers had a written business plan, had systems in place for invoicing, delivery, food safety, and other basic business components.

In order to move forward we have had to take a few steps back and work with producers at a much more basic level. We have created an unincorporated network of producers (in lieu of formal legal structure); this group is called Lone Tree Foods. Lone Tree Foods provides the technical assistance that the local food producers need in order to become ready to meet the demand for local food in wholesale markets. Lone Tree Foods works with specialty crop farmers in southwest Iowa and links them to wholesale buyers. Lone Tree Foods actively works to connect growers to buyers while simultaneously increasing the capacity of growers to build better wholesale systems. This project has been highly successful, allowing the specialty crop farmers in southwest Iowa to scale up with sustainable business practices and to build stronger connections with the wholesale buyers than would have happened if they each had to work on their own. By working collaboratively we have overcome many significant obstacles and increased the amount of food that is accessible for wholesale purchase.

Once the first growing season began we found it very difficult to find time to meet with the producers or hold Advisory Board meetings in person. We tried to hold webinars and conference calls and several growers came to Omaha for deliveries weekly and were able to check in with the project manager. Overall this lack of monthly meetings seemed to slow down our progress as a group. The birth of two children also slowed production and expansion on two farms. The Local Food Coordinator and the Project Manager met more often and tried to develop formal systems for the group to develop and grow, including an application process, affidavit to production and quality standards, delivery guidelines, more trainings, and statements of commitment for both producers and buyers. It has become clear that some of these are unnecessary and even put off potential producer members and are being revised by a newly reformed Advisory Board that is once again meeting monthly. In the future we will establish this Advisory Board with stakeholders other than producers included that will meet quarterly, but an operations committee and other committees are needed to meet more often.

The Project manager met with several chefs and tried to gain a better understanding of their needs, interests and level of commitment. Through these discussions, online and printed surveys, we discovered that buyers do not want to participate in the creation of a value chain or attend meetings and in general do not want to state prices they will pay or quantities they want to purchase. They seem to want to buy local food when it is available, would like to buy more and more easily and like the ideas behind a value based food system, but the bottom line is usually price and they often have established, loyal relationships with other non-participating farms.

We had a change of staff in the Local Food Coordinator position, leaving it vacant from February – October of this year. The Project Manager focused on the weekly availability list, making sales, and promoting the group. Activities included maintaining producer interest and commitment, understanding their needs as well as buyers needs and seeking ways to create an endeavor that works for both sides.

This was often time consuming and difficult work with two very independent groups of people (chefs and farmers). Numerous public and private meetings, phone calls and emails; research into other models and best practices; organizing and executing trainings; meeting with other stakeholders as well as continuing the weekly availability work was all executed by this manager individually.

CONTACT PERSON

☐ Name the Contact Person for the Project: Greg Mathis and Lori Tatreau

- 712-482-3029
- greg@goldenhillsrcd.org or lori@westernhillsresources.org

ADDITIONAL INFORMATION

☐ Provide additional information available (i.e. publications, websites, photographs) that is not applicable to any of the prior sections.

http://www.lonetreefoodsnetwork.com/

https://www.facebook.com/LoneTreeFoods

Logo

One Farm new high tunnel

Rolling Acres new high tunnel

Produce Growers Learn How to Write Your Farm Food Safety Plan

If you are growing and selling produce, especially to restaurants or stores, could you trace your product all the way back to the seed in case of any food safety questions or issues? These classes will help you do a self-audit of your farm and write a farm food safety plan. Why not take advantage of this time and support to simply write down how you take care of the food you grow?

Good Agricultural Practice 1: Self-Audit Certificate Program
Tuesday, November 12, 2013
8:30am - 4:30pm

This 6 hour training course will help establish good on farm food safety protocols and give you the skills needed to execute a GAP self audit of your farm. This is an introductory level course that is a pre requisite for taking more advanced GAP training. This class does not provide you with GAP certification. You will get a certificate from Iowa State University that you have been trained in self auditing your operation for GAP standards. A great opportunity to explore food safety protocols prior to attempting GAP certification. Lunch Included. Registration is per farm. If you need additional material packet ($15) or an additional lunch ($10) contact Matt Mancuso 712 325 3418. Fee $45
Iowa Western Community College Council Bluffs Campus Dodge Hall Room 1033
Call 712 325 3404
http://www.iwcc.edu/Continuing_Education/work_related/environmental.asp

Good Agricultural Practices 2: Self-Audit Certificate
Thursday, November 21, 2013
8:30am - 4:30pm

This level 2 workshop is available to anyone who has successfully completed the Intro to GAP / GAP Self Audit / Basic GAP certificate workshops with their states Extension or other agency in previous years. Join us to work with ISU food safety experts to write your farm plan and begin implementing what you've learned about GAP to make your farm a safe resource for locally grown fruits, vegetables, and value added products. This class will help reduce risks of food borne illness outbreaks associated with your farm and it might help you market to grocers, restaurants and larger scale companies. This class will give a brief introduction to a food safety plan and prepare you to identify hazards; you will build an On Farm Food Safety Plan Manual. Lunch Included. Registration is per farm. If you need additional material packet ($15) or an additional lunch ($10) contact Matt Mancuso 712 325 3418. Fee $45
Iowa Western Community College Council Bluffs Campus Dodge Hall Room 1033
Call 712 325 3404
http://www.iwcc.edu/Continuing_Education/work_related/environmental.asp

IOWA WESTERN

lone tree FOODS

Example of training

Example of weekly availability list sent to potential local food buyers each week.

CATEGORY	GENERAL ITEM	VARIETY	FARM	COMMENTS WEEK OF SEPTEMBER 9	TOTAL QUANTITY AVAILABLE	UNIT (LB., BUNCH, OZ., ETC.)	PRICE PER UNIT	ORDER	TOTAL	CONTACT INFO	CHEF REQUESTS/COMMENTS
				NEW OR IN SEASON THIS WEEK							
FRUIT	PEACHES		OLD NELLY FARM		50 LBS	LB	$2.00			KUMARI 402-981-3109	
MISC.	EGGS	CERTIFIED ORGANIC, BROWN AND WHITE	PIN OAK PLACE	HAS NEBRASKA LICENSE	20 DZ	DZ	$3.00			ELLEN 712-579-1933	
VEG	TOMATOES	HEIRLOOM	OLD NELLY FARM	GENERALLY LARGE, VARIETY OF COLORS AND SIZES	70 LBS	LB	$2.50			KUMARI 402-981-3109	
VEG	TOMATOES	CHERRY	OLD NELLY FARM	VARIETY OF COLORS	20 LBS	LB	$2.50			KUMARI 402-981-3109	

Virtual field days – developing web-based resources to enhance competitiveness of Iowa fruit and vegetable growers

Final Report

PROJECT SUMMARY

For Iowa's 1,200 commercial fruit and vegetable growers, field days are an important source of new ideas to enhance competitiveness. However, many growers cannot attend field days due to time demands created by a shortage of on-farm labor, frequent participation in farmers markets, the expense of taking a day off and the associated travel costs, and time competition from off-farm jobs. An additional drawback is that pre-scheduled field days are sometimes cancelled or compromised by rain, extreme temperatures, or other factors, which can waste valuable time for both presenters and attendees. The proposed project broadens access to field day experiences by re-creating them on the Internet: on websites of the Iowa Fruit and Vegetable Growers Association and Practical Farmers of Iowa, the two main groups to which Iowa fruit and vegetable growers belong. The project is important because demands on growers' time keep increasing while their need for practical management information also continues to grow; our project addresses the problem by delivering on-farm production information in a convenient, always-accessible package. The project is also timely because the technology to deliver virtual field days – inexpensive video cameras, editing software, and availability of YouTube to broadcast the results – has recently become accessible and easy to use.

We produced 11 virtual field day videos in YouTube format. The videos show Iowa growers in their fields, packing sheds, farmers markets, and on-farm markets, explaining how they solve various issues associated with vegetable and fruit crop management, including crop production, pest management, and business management challenges. Six farms were featured: Wabi Sabi Farm in Des Moines, Deal Orchard in Jefferson, ZJ Farm in Solon, Berry Patch Farm and Table Top Farm in Nevada, and Small Potatoes Farm in Minburn. The crops discussed in the videos range from apples and blueberries to Christmas trees to tomatoes, cucurbits, garlic, and salad greens. The growers offered farm enterprise management tips on a wide range of topics, including crop diversification (Christmas trees), value-added products (hard cider), Community-Supported Agriculture (CSA) efficiency and marketing, and the use of high tunnels and greenhouses to extend the cropping season. The completed YouTube videos ranged in length from just under 7 minutes to over 14 minutes; they were edited to these short time frames to hold viewer attention and focus on the main take-home messages from the presenters. Links to all edited YouTube videos were recently (January 2014) made available to IFVGA and PFI for uploading to their websites.

PROJECT APPROACH

Our approach was to select growers and farms for the virtual field days to cover as wide a range as possible within Iowa in specialty crops, geography, and subject matter of interest to growers. The other criterion was that the growers should be willing to talk freely on camera, so we selected people who fit this need as well.

During Year 1 of the 2-year project, we acquired the hardware (MacBook Pro® laptop computer) and software (IMovie®) needed for filming and editing. We also tried out the format using footage we shot during July 2012 at Berry Patch Farm. From this initial experience, we learned that we needed to purchase a specialized microphone to shield against wind noise on the audio. We also developed ideas for an optimal format. During the Berry Patch video editing, we represented questions to the owner, Dean Henry, as text interspersed with footage of Dean answering the questions in his blueberry field. We changed this format in 2013 in order to be more engaging and immediate: we included the questioner (Mark Gleason) as well as the grower's replies in the footage for a more real-time feel. In addition, we dispensed with a tripod for the video camera in 2013, realizing that hand-held footage gave us more flexibility in following a grower through the field.

Another task was to identify farms and cooperators for the virtual field days. We used the following criteria:

- Farms that were the focus of planned field days by either IFVGA or PFI. Two virtual field day videos emerged from our filming of a PFI-organized field day at Small Potatoes Farm.
- Crop diversity. The "virtual field days" featured as many different fruit and vegetable crops and production issues as possible.
- The virtual field days emphasized topics of broad interest, including: organic and conventional production; protected agriculture (high and low tunnels, plus greenhouses); cucurbit and solanaceous crops; value-added production; crop diversification; and protection of pollinators.
- Willingness to participate. We selected individuals with whom Mark Gleason and Jean Batzer had worked previously in on-farm research and demonstration trials, so all of the individuals were willing to participate.

During the summer of Year 2 (2013), we visited 5 farms, from which we edited footage into 10 videos in the fall of 2013. The decision to create 2 videos per farm was made in order to keep each YouTube segment relatively short, and to focus on only one or two subjects per video. For example, the Table Top Farm footage was edited into two segments; the first focused on crop production practices and problems, whereas the second video focused on Sally Gran's idea about managing a CSA enterprise successfully. In addition to focusing the YouTube footage on key questions and answers, we added background music and credits during editing in order to make the videos appear more professional.

Mechanism by which we ensured that all activities enhanced solely the competitiveness of specialty crops and not non-eligible commodities.

- The planting, growing, and pest management techniques described in the video segments have no relevance to row crops or other commodities, but only to fruit and vegetable crops. This is entirely clear from the video topics listed below.
- Video segments were made available solely through websites of the Iowa Fruit and Vegetable Growers Association, which has no members who grow non-specialty crops.

GOALS AND OUTCOMES ACHIEVED

The goal of the project was to increase access by commercial specialty-crop growers to field day experiences. This is now achieved. Furthermore, we produced a total of 11 videos rather than the 6 videos promised in the project proposal.

List of 11 YouTube® videos that are on the IFVGA website:

Farm	*Video title*	*Subject matter (keywords)*
Deal's Orchard	Part 1	Agri-entertainment, history, gift shop, Christmas trees
Current Link: http://youtu.be/qq7v62YAHhk		
Deal's Orchard	Part 2	Hard cider: fermentation, filtration, bottling, marketing
Current Link: http://youtu.be/GKc6_TWSzuI		
ZJ Farm	Part 1	Local Harvest CSA, efficiency, handling, pest management
Current Link: http://youtu.be/336oi9ouwHY		
ZJ Farm	Part 2	Seedlings, garlic, efficiency, storage, movable high tunnel
Current Link: http://youtu.be/0z7kHETXPhE		
Small Potatoes Farm	Field Day 1	Beneficial insects, farm background, organic, wild bees
Current Link: http://youtu.be/uJH_zNpmgKU		
Small Potatoes Farm	Field Day 2	Q&A, cover crops, Sunn hemp, pest management
Current Link: http://youtu.be/RtITqRPCJV4		
Berry Patch Farm	Untitled	Blueberry, planting, farmers market, pick your own
Current Link: http://youtu.be/CtX3RQbyhPM		
TableTop Farm	Pest management	Bacterial wilt, squash vine borer, efficiency
Current Link: http://youtu.be/ttJ7avP4Loc		
Table Top Farm	CSA	Community-supported agriculture, advertising, pricing, packing
Current Link: http://youtu.be/mPVfXrg1-D4		
Wabi Sabi Farm	CSA Day to Day	CSA, advice, work for share
Current Link: http://youtu.be/RkGhxI0tLCE		

Wabi Sabi Farm Organic Practices Trellising, tomatoes, organic

Current Link: http://youtu.be/vEs_VRW4a3s

- A small number of growers (9) responded to our "reactionnaire" survey concerning the video segments (out of 30 growers who were contacted). A report detailing and summarizing these responses has been appended to the end of the present report; please see pages 6-9.

Conclusion

- The project was successful in producing 11 near-professional-quality video summaries and making them readily available to specialty-crop growers in Iowa and other states. These videos are the first attempts in the state to capture field day experiences into YouTube segments that are accessible free of charge to growers with Internet access on a 24/7 basis.

RECOMMENDATIONS

- Utilizing this method of capturing field day experiences has potential to greatly expand access to field day and on-farm-visit experiences for specialty crops growers in Iowa. These growers are widely scattered geographically in the state, and virtual field days have good potential to provide a new, engaging, open-access means of sharing grower knowledge and increasing communication among growers.
- Minimum equipment required for making virtual field days includes a relatively new Apple computer (desktop, laptop, or IPad) and IMovie® software for editing, plus a video camera with high-definition capability and a microphone with a cover to protect against wind noise.
- ISU Extension field specialists and state specialists are well positioned to develop additional virtual field days due to their extensive contacts among specialty-crop growers.

Roles of project partners

Six Iowa commercial specialty-crop growers provided their time and expertise for 1 to 2 filming session per farm, and also commented on draft forms of the edited videos. Their comments were used to modify the videos into final form. The names and affiliations of these growers:

- Jerald Deal (Deal Orchard) – Jefferson, IA
- Susan Jutz (ZJ Farm) – Solon, IA
- Rick Hartmann (Small Potatoes Farm) – Minburn, IA
- Dean Henry (Berry Patch Farm) – Nevada, IA
- Sally Gran (Table Top Farm) – Nevada, IA
- Ben Saunders (Wabi Sabi Farm) – Des Moines, IA

Mark Gleason and Jean Batzer identified the growers and provided coordination with them, and Mark Gleason interacted with the growers during the video shoots. Videographers and

editors were Hayley Nelson (paid as an hourly worker from the SCBG grant) and Kate Gleason (not paid by grant funds).

Beneficiaries

The primary group to benefit from the virtual field days is the ~2,500 commercial fruit and vegetable growers in Iowa, although the virtual field day videos will also be accessible to growers from other states and organizations who visit the IFVGA or PFI websites.

- No further data were taken after the May-June 2014 reactionnaire survey of growers.

LESSONS LEARNED

- Editing of virtual field day videos took about 30 times longer to complete than shooting the actual footage. This was a learning curve for us, but will make future video outreach efforts easier to plan realistically.
- It is important when filming to find a quiet place on the farm or in a shed for the grower to introduce him/herself and set a context for the farm: when it began, changes that have occurred over time, crops grown, etc. This helps to set a context for the video's exploration of more specialized topics during the interview.
- The strategy of including the "visitor" (Mark Gleason) asking questions in the footage is preferable to stating questions as text interspersed with the grower footage because the former provides a great sense of "you are there" immediacy, much like a real field day experience.
- Always carry extra batteries (fully charged) for the video camera when filming in the field.

CONTACT PERSON

- Mark L. Gleason, Department of Plant Pathology and Microbiology, Iowa State University
    - Phone: 515-294-0579
    - Email: mgleason@iastate.edu

Survey Results Summary: Virtual Field Days

June 2014

Important Highlights

ZJ Farm videos, Parts 1 and 2, each received one 'Not Helpful' rating. All other videos were rated 'Somewhat helpful' or 'Very helpful.'

All respondents are 'Likely' or 'Very likely' to look into future Virtual Field Days.

Over half of respondents had not heard about the Virtual Field Day videos until receiving an email. Four respondents had heard of the videos from posting them on IFVGA and PFI websites.

Several specific suggestions to increase the likelihood of participants seeking out future VFD videos were offered: videos about aronia berry, learning about the videos via email, and covering topics that are more specific.

Most people (7 in 9) felt the videos were a good length, but 2 in 9 felt they were too long.

6 in 9 respondents felt the videos were adequate substitutes for live field days, while 3 in 9 felt they were not adequate substitutes.

Specific topics respondents would like to see in future VFD videos are: weed control; succession planting strategies and other methods for climate change risk mitigation; HH management tips, equipment usage tips (tine & basket weeders, etc); high tunnel production

One respondent said the videos need to be more entertaining, they are "borish bland."

Actionable Items

<u>Dispersal</u>

- Develop an email list to share videos and other resources with growers. Growers could subscribe to an email list, and they always have the option to unsubscribe easily.

<u>Topics</u>

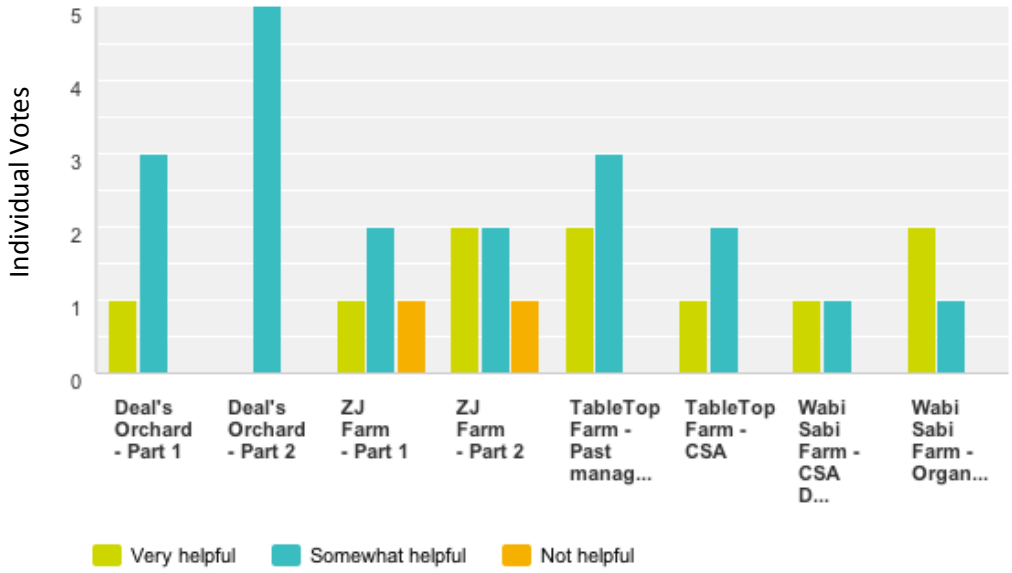
- Make some shorter videos as well as long videos.
- Cover specific topics like aronia berry growing, weed control, succession planting strategies, climate change risk mitigation, HH management tips, equipment usage tips (tine & basket weeders), and high tunnel production

<u>Enjoyment</u>

- Make the videos more entertaining.

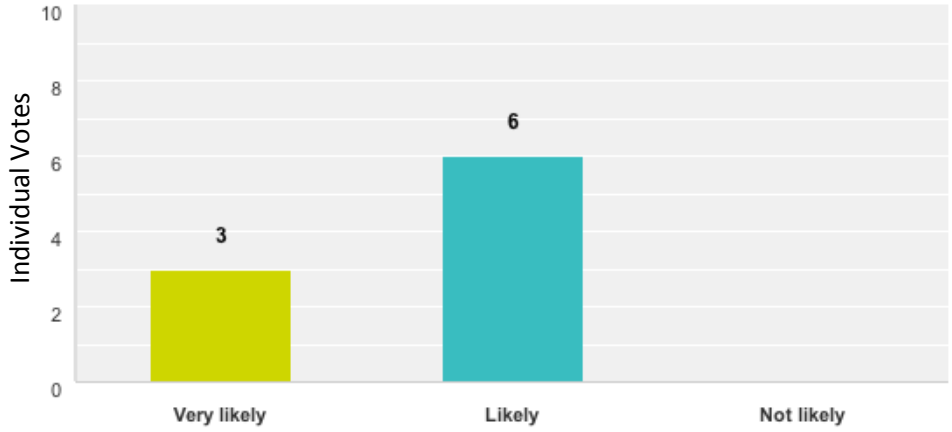
QUESTION 1.

FOR EACH OF THE VIDEOS YOU WATCHED, PLEASE RATE THEIR OVERALL VALUE TO YOU.



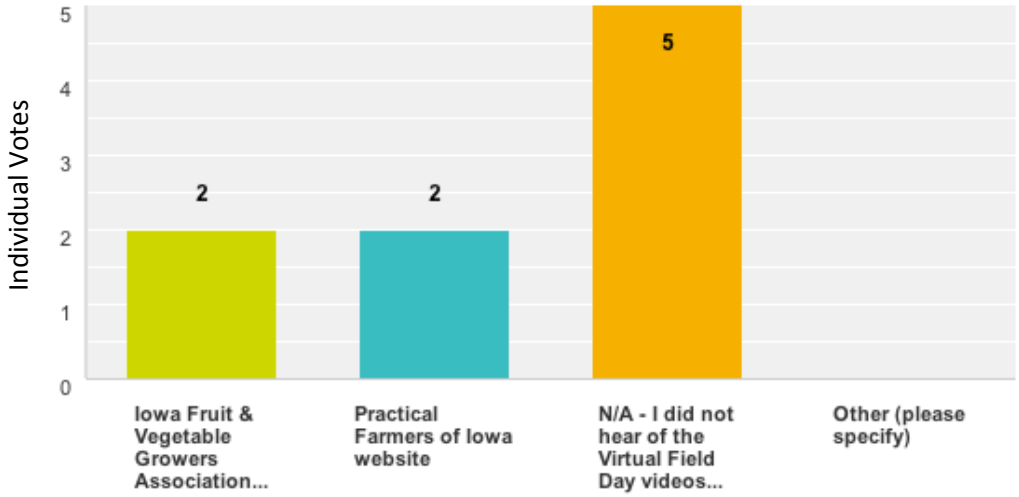
QUESTION 2.

BASED ON THE QUALITY OF EXISTING VIRTUAL FIELD DAY VIDEOS, HOW LIKELY ARE YOU TO SEEK OUT AND VIEW FUTURE VIRTUAL FIELD DAY VIDEOS ON SUBJECTS RELATED TO COMMERCIAL FRUIT AND VEGETABLE PRODUCTION IN IOWA?



QUESTION 3.

BEFORE RECEIVING THIS SURVEY, IF YOU HAD HEARD OF THE IOWA VIRTUAL FIELD DAY VIDEO SERIES, HOW DID YOU LEARN ABOUT IT?



QUESTION 4.

WHAT WOULD INCREASE THE LIKELIHOOD OF YOU SEEKING OUT FUTURE VIRTUAL FIELD DAY VIDEOS?

SUMMARY OF RESPONSES:

Specific/Actionable: Videos about aronia berry, learning about it via email, covering a “specific” topic

Vague/Unhelpful: Covering “relevant,” “practical” topics

QUESTION 5.

PLEASE SELECT THE ANSWER THAT BEST INDICATES HOW YOU FEEL ABOUT THE LENGTH OF THE VIDEOS.

SUMMARY OF RESPONSES:

2 in 9 felt the videos were too long

7 in 9 felt the videos were a good length

QUESTION 6.

HOW ADEQUATE DO YOU FEEL VIRTUAL FIELD DAYS ARE AS SUBSTITUTES FOR LIVE FIELD DAYS?

SUMMARY OF RESPONSES:

3 in 9 felt the videos were not adequate substitutes.

6 in 9 felt the videos were adequate substitutes.

QUESTION 7.

WHAT TOPICS WOULD YOU LIKE TO SEE IN FUTURE VIRTUAL FIELD DAY VIDEOS?

SUMMARY OF RESPONSES:

Weed control

Succession planting strategies and other methods for climate change risk mitigation

HH management tips, equipment usage tips – tine weeder, basket weeder, etc

High tunnel production

Needs to be entertaining, is borish bland

IDALS Specialty Crop Block Grant Program Final Report

Project Title: Improving detection and management strategies for insects in Iowa grapes

Project Leader: Erin W. Hodgson, Iowa State University

Project Summary:

The purpose of this project was to prepare Iowa grape producers to manage a complex of insect pests. The brown marmorated stink bug is newly detected in Iowa, and has potential to seriously threaten yields and marketability of Iowa grapes and other specialty crops. The multicolored Asian lady beetle is established in Iowa, but the full extent of damage in Iowa grapes is unknown. Field research helped determine the presence and extent of activity in grapes. Increased scouting efforts will help properly time insecticide applications to protect grape quality and quantity.

Project Approach:

1. Determine when and where multicolored Asian lady beetle (MALB) and brown marmorated stink bug (BMSB) are active in Iowa vineyards.

Commercial vineyards were intensively sampled for beneficial and pest insects in 2012 and 2013. Overall pest pressure was low for all sites and both years. The brown marmorated stink bug was never detected and the multicolored Asian lady beetle was not abundant. The most prevalent pest was Japanese beetle; leaf defoliation was detected in 2013, but did not warrant chemical control. Beneficial insects and spiders were present at all locations. Over ten insect families were collected throughout the project.

Of special note, spotted winged drosophila was confirmed at the Penoach Vineyard in 2013. This detection was a first for Dallas County, Iowa. This new invasive pest was confirmed in Iowa in 2012 and has had several detections in five Iowa counties in 2013. This pest attacks fresh, undamaged fruit, such as raspberries, blueberries, cherries and grapes. Some farmers can have complete harvest loss due to heavy infestations of the fly. The adults are weak flyers and dispersal to new areas is likely due to human transport.

2. Evaluate insecticide efficacy for MALB and BMSB.

Both of the target pests are difficult to manage with foliar insecticides and often require multiple applications to properly protect fruit. Because insect and disease pressure was minimal or absent at the three vineyards sampled, I did not perform an efficacy evaluation.

3. Create and distribute information on insect pest biology, impacts and management.

During 2011-2013, I was able to present two field demonstrations about primary grape pests to approximately 17 people. Participants included crop consultants and ISU extension personnel. I also created one blog article on sampling and identification of these pests and beneficial insects, and two Integrated Crop Management News articles on pests that can

feed on grapes [approximately 5,500 subscribers]. In March 2014, the student I trained to sample and identify grape insects gave a 12-minute oral presentation at the North Central Branch Entomological Society of America undergraduate competition:

> Stallman, T. and E. W. Hodgson. Survey of insects in Iowa vineyards. B.S. Student Paper Competition. 69th Annual North Central Branch Entomological Society of America Meeting, Des Moines, IA, 10 March 2014.

Goals and Outcomes Achieved:

1. The first goal of the project was to determine pest activity in Iowa grapes. We used several sampling techniques to capture the widest possible range of pest types. By sampling vineyards weekly over the summer, I would be able to describe population dynamics of the most abundant pests and beneficial insects (e.g., when they first arrived, peak and then declined). This knowledge would ultimately improve insecticide applications, if needed, in future growing seasons.

2. The second goal was to raise awareness of grape pests in Iowa. Grapes are a speciality crop and the pest complex likely will be a combination of generalists and specialists. Through presentations and publications, I was able to increase awareness to grape producers. I did not collect enough data to produce a scientific publication. Over 10,000 people read my ICM News articles on pests that feed on grapes, and approximately 80 people viewed Tyler Stallman's professional oral presentation.

3. The third goal was to train an ISU horticulture undergraduate student. Tyler Stallman learned many insect collection techniques, insect curation and identification, and maintaining a database. He also created a presentation and summarized his project at a professional entomological meeting in March 2014. As a result of his experience, Tyler was offered and accepted a competitive internship at a vineyard in the east coast.

Beneficiaries:

Groups of people that benefitted from this project include:

- producers I worked with each summer
- other producers who read my publications or attended my lectures
- ISU extension personnel

Lessons Learned:

I expected there to be more pest activity in the vineyards. Unfortunately, the low numbers prevented me from completing objective 2. I was flexible with sampling techniques and therefore was able to detect a new pest with a novel trap.

Contact Person:

Erin Hodgson, 103 Insectary, Department of Entomology, Iowa State University, Ames, IA 50011; 515.294.2847; ewh@iastate.edu

FINAL REPORT CHECKLIST

The final report will be posted on the SCBGP-FB website and represents an important vehicle for sharing project findings with Federal and State agencies and the public. Final performance reports must illustrate the completion of the activities and outcomes associated with each project within the grant agreement.

PROJECT REPORT(S)

PROJECT TITLE

Biofumigation Potential to Promote Woods Grown American Ginseng

PROJECT SUMMARY

- ☐ The cultivation of American ginseng can produce an extremely high value specialty crop, but is greatly limited by the pressures of soil-borne fungal pathogens. Damping-off of germinating seeds and seedlings within the first growing season is a critical limitation to establishment of a viable ginseng crop. During subsequent growing seasons, as much as one-third of the crop can be lost from additional pathogen pressures. Economic, environmental, and health issues associated with the current dependence on frequent fungicide applications call for alternative techniques to be developed. This research and extension project seeks to evaluate a biofumigation technique, which has the potential to improve the profitability of ginseng production and reduce the effects of conventional fungicides. Research was conducted in an on-farm setting linking Iowa State University personnel and a private landowner in Northeast Iowa. A comparative study of a biofumigation and conventional soil fungicide treatment began in the fall of 2011.
- ☐ Control of ginseng diseases continues to be a critical issue in the cultivation of American ginseng. Pathogen pressures reduce crop yields by as much as one-third in the United States and management strategies specifically targeting root rot diseases are needed. Current practices of repeated fungicide applications are expensive, result in low levels of control from available labeled fungicides, and food safety concerns of pesticide use and residues necessitate new strategies for pest control. This project aimed to provide specialty crop producers with new management and production practices to improve the economic profitability of their operations by reducing input costs, improving overall crop yields, and decreasing secondary impacts associated with repeated fungicide applications.
- ☐ The project was not built on a previously funded project with the SCBGP or SCBGP-FB.

PROJECT APPROACH

- 10 replicate sites in a northeast iowa sugar maple dominated forest were delineated, fenced to exclude deer, and three 1x5m areas inside each replicate were treated with one of three treatments (ridomil fungicide which is commercially labeled for ginseng, brassica meal incorporated into the soil to act as a biofumigation, and a control)
- 15,000 individually hand planted seeds were planted in 2012 (10 replicate sites x 3 treatments x 5 seed sources X 100 seeds on a 10cm x 10cm grid) surveyed weekly throughout the growing seasons of 2012, and 2013 for germination and survival. And monthly in 2014.
- Seedlings that did show signs of damping off mortality were immediately harvested, washed, and stored in refrigeration until being returned to ISU campus within 8 hrs of harvest. Once back on campus seedlings were washed again in an agitation bath for 30 minutes and areas showing visible signs of damping off were excised from the plant and plated on agar.
- Following a grow out period on selective media agar of 3-7 days the samples were examined to determine the type of pathogen present or were replated to purify the pathogen.
- Once purified the samples were placed into long term storage until enough samples can be collected to run a 96 well PCR.

☐ This project Did Not benefit commodities other than the targeted specialty crop: Ginseng.

☐ One Landowner participated in the field work hosting all replicate sites in NE Iowa.

GOALS AND OUTCOMES ACHIEVED

Performance Measure A: Evaluate germination success, pathogen frequency, above and below ground growth and first year survival for the five seed sources in a comparative field trial against a conventional fungicide application and an untreated control.

Target A: To improve the germination, growth and first year survival of ginseng seedlings while decreasing the pathogen frequency.

Findings,

The research site underwent a severe drought during the 2012 growing season and as such, only 325 ginseng seedlings germinated and grew into first year seedlings out of the total 15,000 planted seeds. With the drought and low germination rates it was decided to leave the sites undisturbed and follow the grid in 2013 and 2014 to study if ginseng delayed germination potential was valid following severe drought. We can report that the 2012 drought was so severe that no further germination was found in 2013 and 2014. Of the 325 ginseng plants that did emerge. We harvested 51 in 2013 that showed signs of dampening off. (18 in the untreated controls, 19 in the brassica meal treatment, and 14 in the direct fungicide treatment area). It is important to note that the seedlings in the direct fungicide treatment area succumbed to pathogens late in the 2013 growing season where as all others were found declining in the early part of the season. It could be that the fungicide applied in spring 2012 lasted until late in 2013. From a management standpoint it appears the application of fungicides need to occur annual in the spring under woods cultivation techniques similar to field grown ginseng. Over half of the ginseng germinants where isolations were successfully grown on agar were found to be infected

with Fusarium (31 of 51 seedlings) with ryizoctonia accounting for 2 of the 51. For the remaining 18 isolates, no clear pathogen could be confirmed and molecular work will need to be completed when numbers allow. All isolates were placed into long-term storage for future work should the need arise and numbers make the work viable. The remaining seedlings will be followed for the next several years to quantify annual survival and growth into seed bearing age classes but because of the drought and limited numbers we are restricted in our ability to test most aspects of the project (treatments).

Performance Measure B: Evaluate the online usage of technical bulletins and knowledge gained for participants at informational field days, workshops and conferences.

Target B: To produce two Extensions technical bulletins and incorporate research findings into a new ginseng specific field day and three existing Extension field days throughout Iowa.

- ☐ 4 Ginseng related publications were written and distributed at 4 forestry field days (363 attendees) and through the Forestry Extension website. To date, 11818 publications have been downloaded from the site and 9830 Ginseng presentations have been downloaded and viewed from the website. Information online has continued to generate phone calls and emails if inquiry as to raising ginseng and more specifically how to control pathogens, and what seed treatments should growers look at. Moreover, the information was presented at a series of forestry field days where specialty crops such as ginseng were highlighted. This continues to generate interest and individuals that are currently raising ginseng on a small scale.

BENEFICIARIES

Approximately 500 registered ginseng harvesters actively gather or cultivate ginseng on an annual basis. The true extent of ginseng cultivation in Iowa has been difficult for the Iowa DNR to ascertain because of a desire for producer anonymity driven by the high dollar value of ginseng roots. Provide a description of the groups and other operations that benefited from the completion of this project's accomplishments.

LESSONS LEARNED

Given the catastrophic drought that Iowa experienced in 2012 and 2013 and the on farm nature of the research, the scope of the project became limited almost immediately. If we move forward with another ginseng study we will work to identify a site closer to central Iowa that has the ability to be irrigated should a catastrophic drought occur. Our inability to water newly germinating seedlings due to the remote location of the research site, and the quick and severe nature of the drought took its toll on the new germinants. Because ginseng has a mechanism to delay germination until favorable conditions occur, it was our hope that the seeds would employ this mechanism. They did not. Newly planted seed that has started to germinate must be given supplemental watered in the first year if severe drought conditions arise late in the season (July and August). We did utilize extra seed to investigate the potential that purchased commercially available seeds are carrying harmful pathogens and are planted with those pathogens already primed to weaken and kill newly germinating plants.

- In the lab we conducted a series of pathogen studies on the seed itself. We looked at seed coat pathogens, our ability to sterilize the exterior of the seedcoat and internal to the seed coat pathogens. Initially we conducted a series of studies with seed lots (N=20) and soaked the ginseng seed lots in ethanol and bleach for 30 seconds, 1 minute, and 5

minutes and plated the seeds on agar to identify treatment and soak time. From that initial study we refined the process where we randomly chose

- 40 seeds from the MO source and treated with two exterior seed coat treatments (Ethanol soak for 5 minutes, or 10% bleach for 5 minutes)
- Split in half with a sterile razor and ½ was plated on DV8++ agar and the other ½ was plated on PARP to provide optimal growing media for a wide range of pathogens
- Plates were checked for fungal growth daily and were identified

Findings,

Seeds treated with bleach for 5 minutes where twice as likely to develop pythium than those seeds treated with Ethanol. Interestingly those treated with ethanol did develop pythium and it appears that this pathogen might be interior to the hard seed coat. More work is needed to tease apart the seed treatment / sterilization needs and pathogen load carried by the seed. Potentially working to find a viable seed coat treatment.

CONTACT PERSON

- ☐ Jesse Randall
  - 515-294-1168
  - randallj@iastate.edu

ADDITIONAL INFORMATION

- ☐ the 4 ginseng publications can be found online at http://www.extension.iastate.edu/forestry/publications/new_pubs_quick_link.html

FINAL REPORT CHECKLIST

The final report will be posted on the SCBGP-FB website and represents an important vehicle for sharing project findings with Federal and State agencies and the public. Final performance reports must illustrate the completion of the activities and outcomes associated with each project within the grant agreement.

PROJECT REPORT(S)

PROJECT TITLE

Establishing Standards for the Fertilization of Fir Trees to Assist Iowa Christmas Tree Growers

PROJECT SUMMARY

Nationally, the market for Christmas trees continues to transition from pines to firs as buyer preferences shift. Growers in Iowa are following the national trend, but this transition is not without issues. Pines are fast growing and can be ready to sell in five to six years, while firs require six to ten+ years to reach market size. Pines thrive within a wide range of soil types, fertility levels, and climatic conditions, while firs are much more sensitive. Because firs are relatively new to the Iowa Christmas tree industry, it is critical to determine the optimal fertilization schedule across a range of soils throughout the state. Furthermore, the literature is unclear as to whether fertilization to maximize growth is one of the factors that exacerbates cone production in firs. To date, cone production is dealt with through yearly manual removal techniques that add a significant production cost to producers. If left untreated, cone stalks that remain on the trees are unsightly and undesirable, reducing the value of the tree.

Iowa growers currently do not have a standardized fertilization rates for fir trees and it is extremely difficult to transfer fertilization standards from states such as Michigan and New York to Iowa. Soil and climatic differences make this transfer problematic. This project **"**Establishing Standards for the Fertilization of Fir Trees to assist Iowa Christmas Tree Growers" was the preliminary establishment stage of what will be a multi-year (almost decade long) study to determine fertilization levels necessary for optimal growth and to determine if cone production is related to excessive fertilization application.

PROJECT APPROACH

- Three Iowa Christmas tree farms were selected in the fall of 2011 based on the farmer's willingness to participate, ability to provide in-kind support, allow access to the farm on an as needed basis, have an appropriate sized block of land to plant 360 trees, and the soils were uniform across the location but differed between the three farms. When all 2012 planted seedlings died during the excessive drought conditions the decision was made to replant in 2013.
- Fraser – *Abies fraseri* and Canaan – *Abies balsamea* var. *phanerolepis* fir trees were reordered in the fall of 2012 and shipped to ISU in the spring of 2013. Because of the late winter conditions in Michigan the seedling nursery was behind schedule with their spring lifting. This resulted in later shipping and reduced uniformed due to expedited seedling grading. This increased the variation in seedling initial size. Seedlings where checked for uniformity, counted, and randomly assigned to one of the three farms.

- Seedlings were delivered to the farms in late April and all trees were planted the week of May 6 2013 and allowed to establish during the 2013 growing season. Seedling survival, and growth was measured at the end of the growing season.
- In spring 2014, four fertilization rates (0,0.3,0.6, and 1 oz/tree) were randomly assigned to seedlings at each farm. Fertilizer was administered as a top dressing when the ground thawed but before trees broke bud.
- Survival, growth, overwinter bud mortality was measured in the spring and again in the late summer of 2014.
- The drought of 2012 and the subsequent drought of 2013 enabled us to look at soil moisture and temperature and the impacts to fir survival. It enabled us to make recommendations as to the timing of "rescue" watering and the need for on farm above/belowground weather stations. The seedlings planted in 2013 did fair better than the 2012 seedlings but one site was removed from the study because of low seedling survival. We did find clear differences in species survival and growth with the higher sand content soils showing significantly higher survival (76% for Fraser, and 87% Canaan) but lower terminal growth (6.4cm for Fraser and 4.75 cm for Cannan) across all fertilization rates for both species. Interestingly, Fraser fir had greater annual growth in 2014 than Canaan fir. Given that the fertilization has only occurred for one year (spring 2014) and will continue throughout the 10 year rotation we expect to see a divergence in growth rates at both farms. We did see large differences in overwinter top bud dieback associated with soils. The sand dominated soils at the Moulds farm had significantly higher rates of dominant bud dieback for both Fraser (35%) and Canaan (44%) vs. the higher clay content soils at the Harmon Farm (3% Fraser) and (2.7% Canaan) respectively. This dominant bud dieback needs to be studied in more detail as weather is expected to continue to be more variable and extreme.
- No other commodities benefited from this research on Fir tree fertilization.
- The on farm cooperators (Bob Moulds, Danny Moulds, and Gary Harmon) assisted in all aspects of the project as their time allowed. Bob and Danny oversaw all planting on their respective farms and Gary assisted in the planting on his farm.

GOALS AND OUTCOMES ACHIEVED

Goal: To determine fertilization standards for optimal growth of fir trees in Iowa.

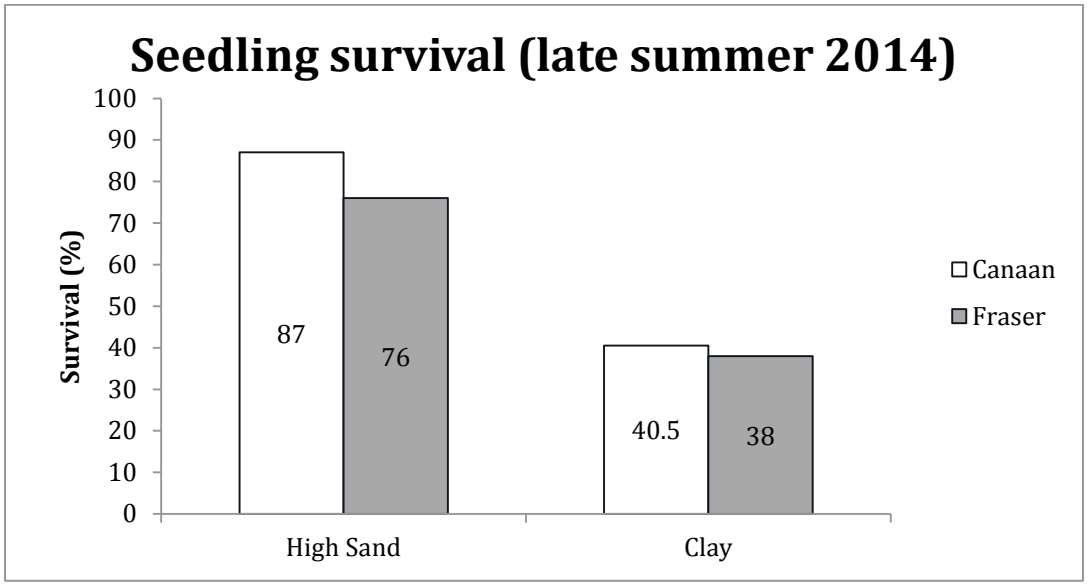
Performance measure**:** Optimal growth will result in a marketable six foot fir tree in six-eight years.

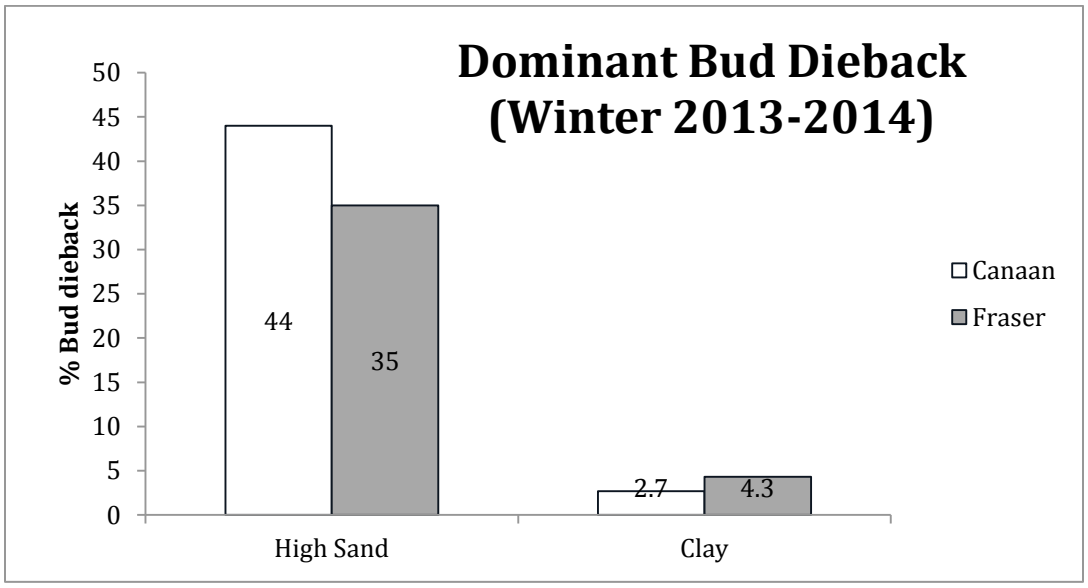
- 360 fir trees (180 Canaan and 180 Fraser) were planted at three Christmas tree farms spanning a gradient of soils (sand to clay). The initial 2012 planting all died due to extreme drought and we replanted in 2013 and allowed to establish for one year. 2014 was the first year that fertilization rates were applied. The results of which should become apparent in subsequent years.

Goal: To determine the relationship between fertilizer and excess cone production in fir trees

Performance measure: The trees in the test plots will not exhibit excess cone growth vs. unfertilized controls.

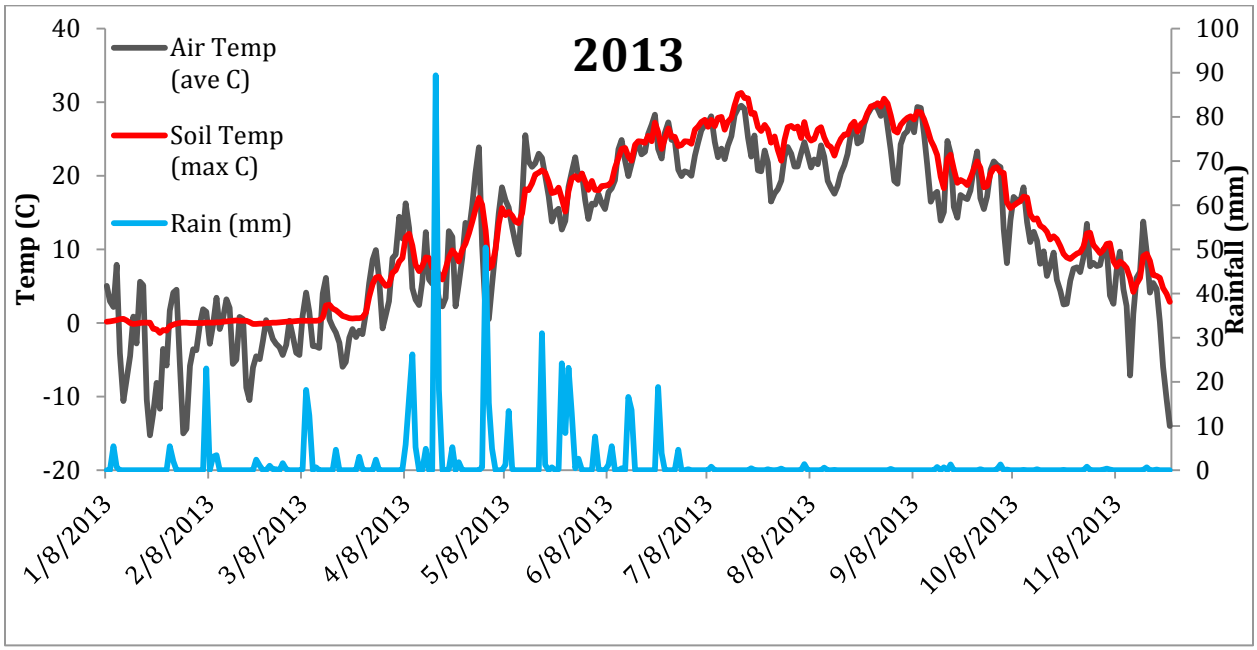
- The same 360 trees at each location will be measured for the duration of the production rotation (normally ten years) and will be monitored for cone production. These results will be presented to the growers over the next decade as the project comes to completion and fertilization rates refined to meet soil conditions.

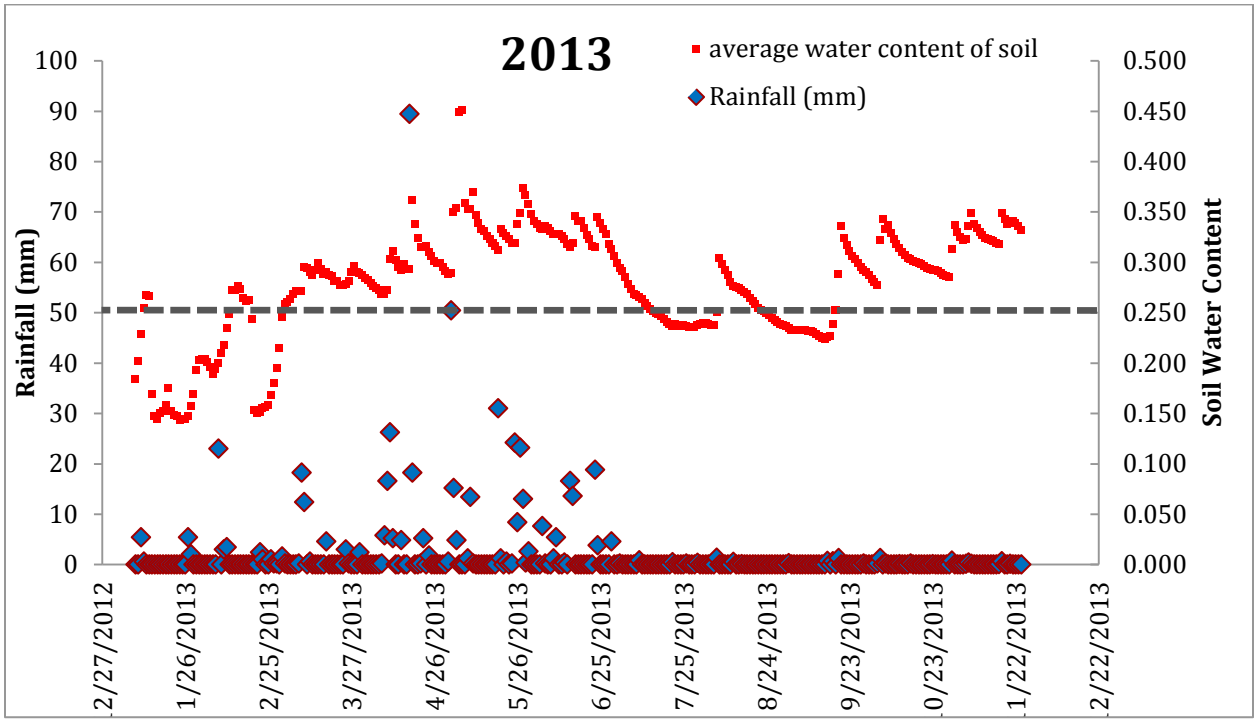




In addition to completing the preliminary set up and establishment stages of the project, the weather stations provided data that growers could use immediately to increase survival and decrease watering and replant costs. 157 Growers across two annual meetings (1hr formal presentation for each meeting, and in field demo's of the on farm irrigation system) were introduced to the weather station concept and were shown what the sensors look like, how they were installed, various options that exist for data loggers and sensors, what depths to install them at, and tips and tricks to lessen the learning curve. They were shown how to download, graph, and interpret the data based on individual soil characteristics. Discussions also focused on different benefits and drawbacks of irrigation systems. From the 2013 drought data we showed when plants hit lethal moisture stress when plant available water dropped below the baseline. We also showed when soil temperature s at 5 inch depth hit the lethal 80 degrees F threshold. This basic information that each farm should work to obtain could help with irrigation schedules not only for soil water content but also for evaporative cooling of the Fir seedlings. Although not needed every year,

irrigation systems that are mobile will have a very short payoff in the Midwest as the climate becomes more variable.





BENEFICIARIES

- Roughly 40,000 trees are harvested annually in Iowa from 153 farms (IDALS 2007 report) spanning 1,552 acres. These growers are planting an increasing proportion of fir trees across a range of soil conditions and are having to deal with the increasingly variable weather that the Midwest now faces during the growing season. These 153 growers

contribute over 1million dollars annually to the local economy and this figure is expected to rise as the more lucrative Fir trees enter the sales rotation.

LESSONS LEARNED

Perhaps the biggest issue/ learning point for the researchers centered around the on farm research and more specifically with the professional tree growers. Their desire to help out and give suggestions was great but there is still a lack of general knowledge concerning plant physiology and the scientific method. Even though there were written protocols for each producer, there were subtle differences in approach that could lead to differences long-term.

Given the extreme drought of 2012, the loss of all trees was discouraging as it put the project back an entire year. The positives that came from the drought of 2012 was the soil temp and moisture data allowed the researchers to show when mortality began from loss of soil moisture and when the trees dies from heat related stressed. This work started the conversation with growers about irrigation and having back-up systems and linking the use of those systems to accurate on farm weather stations. Several growers installed moveable systems that can be used year after year across the farm in newly planted areas. This information was timely in that 2013 experienced another drought late in the growing season. Growers with irrigation capacity faired better than growers without. We saw large variations in top bud dieback across soil type and that warrants future study. As this was just the initial stages of a much longer project the future years should enable us to tease apart soils and fertilization on two species of conifer trees growing in Iowa. In the coming years we should also be well positioned to address the cone production aspect of the project.

CONTACT PERSON

Jesse Randall

515-294-1168

randallj@iastate.edu

ADDITIONAL INFORMATION

Info on the continuing project will be presented on the ISU Forestry Webpage and at the annual meeting of the Iowa Christmas tree growers association.

FEASIBILITY OF FRUIT AND VEGETABLE VALUE-ADDED PROCESSING IN IOWA'S CONGREGATE MEAL SITE KITCHENS

IOWA FOOD SYSTEMS COUNCIL

Cultivating a just and diverse food system which supports healthier Iowans, communities, economies and the environment

9/14/2012

Feasibility of fruit and vegetable value-added processing in Iowa's Congregate meal site kitchens

Project Summary

Establishing licensed kitchens for value-added processing on farms can be prohibitively expensive for Iowa specialty crop farmers. Licensed kitchens are needed for value-added processing of specialty crops to meet regulatory requirements as well as to increase market options where producers can sell their products. Additionally, Iowa specialty crop producers are challenged with condensed growing seasons, short product shelf life, and limited direct marketing of fresh crops in season. Value-added processing helps to address these issues.

Project Approach

This study focused on alternative options for accessing licensed kitchens by specialty crop producers. Specifically, the study focused on existing licensed congregate meal site kitchens* that could potentially develop shared-**use** processing businesses, bringing additional income to the kitchens and providing more cost-effective options for ***specialty crop*** producers. Using existing licensed kitchens, the time and cost to develop processing options for local ***specialty crop*** producers are potentially minimal compared to building a new kitchen. Thus, a viable processing option for specialty crop producers becomes available and the associated additional income from value-added products becomes a reality.

*Although this study focused on licensed kitchens in congregate meal sites, this approach could potentially be used in other settings with existing licensed kitchens such as schools, churches, catering businesses, etc. Iowa has over 24,000 existing licensed kitchens.

"The Department of Inspection and Appeals recommends an initial meeting with the facility to determine what steps are needed; requirements will vary on a case by case basis."

There were 4 major steps in this study:

1. Survey and analyze Iowa congregate meal sites state-wide to determine feasibility for ***specialty crop*** producer use.
2. Survey and analyze specialty crop producers in geographic areas where congregate meal surveys show a promise for space.
3. Convene meetings in two geographic areas of Iowa with a high interest (from #1 and 2) to discuss feasibility issues such as management, liability, schedules, fees, barriers, etc.
4. Complete a feasibility study report including analysis of survey results, meeting results, lessons learned, and steps for forming agreements between producers and congregate meal programs for the benefit of both entities.

Survey Development

On December 2, 2011, a meeting was held with two congregate meal site kitchen managers, two specialty crop producers, the Nutrition Program Manager for Iowa Department on Aging (IDA), and the project consultant. The purpose was to present the project objectives, discuss potential questions to include on the kitchen manager and ***specialty crop*** producer surveys, and address potential questions for Department of Inspections and Appeals (DIA) in relation to the study. ***Two specialty crop producers were included in this organizing meeting to help insure that the focus of this study was to enhance competitiveness of specialty crops. These producers assisted with personal insight as current specialty crop producers, helped develop questions for the specialty crop producer survey, and gave numerous suggestions of other specialty crop producers to receive the survey.***
On December 13, 2011, Linda Gobberdiel, project consultant, met with Scott Platt, DIA. This initial meeting was to become familiar with the licensing and regulation requirements that would need to be addressed for shared-use processing ***of specialty crops*** in existing licensed kitchens and to gain DIA input on survey questions. The highlights of this meeting included:

- licensure will be an issue as well as the specific process for each ***specialty crop*** product being processed
- the streamlined approach will be to have DIA meet with the kitchen manager on a case by case basis to determine what will need to be done to get the correct licensing and start a processing business

- if we take a limited approach to the initial ***specialty crop*** products that will be processed, e.g. jams and jellies, fresh vegetables, etc. the process will be more simplified and then the ***specialty crop*** products could be expanded once the processing is working in each kitchen
- we need to consider that the kitchen has a license and each ***specialty crop*** producer doing processing at the kitchen has a license; someone assumes liability for the facility and for the processing based on the ***specialty crop*** product and where it will be sold; whoever is the license-holder, they are assuming responsibility; if there are two license-holders, they both assume responsibility for their part
- involve DIA from the beginning

On Friday, December 16, 2011, the project consultants met with representatives of the Economic Work Group of the Iowa Food Systems Council. The purpose was to gain further insight into survey questions and potential ***specialty crop producer*** recipients for the producer survey.

A draft survey for kitchen managers was developed and reviewed by all those who attended the initial December 2 meeting, and the December 16 Economic Work Group meeting.

For the specialty crop producer survey, Linda Gobberdiel contacted each kitchen manager who responded with interest and asked for their input on local ***specialty crop*** producers to receive the producer survey. A survey draft was compiled and shared with Gary Huber (Regional Food System Working Group member and specialty crop producer), Andy Dunham (specialty crop producer), Carlene Russell (IDA), Melvyn Houser (Economic Committee chair for IFSC), Jason Grimm (Regional Food System Working Group member and ***specialty crop*** producer), Craig Chase (ISU Extension, IFSC Economic Committee member, and Iowa Food and Farm Plan Coordinator), Sally Worley (Practical Farmers of Iowa, IFSC Board member and Economic Committee member) and Sally Gran at Table Top farm (specialty crop producer).

"There are many regulations and licensing considerations, but they are not insurmountable."

Goals and Outcomes Achieved

Survey Distribution and Results

The plan was to work with Carlene Russell, Nutrition Manager for IDA and the Iowa Area Agencies on Aging to distribute the survey to Iowa congregate meal site kitchen managers. The goal was a minimum of 60% of surveys completed by sites with working licensed kitchens and a minimum of 4 areas in Iowa identified as interested (in which to reach out to producers for the producer survey). The cover letter email and survey link were sent on Thursday, January 5, 2012. On January 11, we were informed that the Iowa Association of Area Agencies on Aging (responsible for the congregate and home delivered meal program in Iowa) was in the process of reorganizing the area agencies and potentially reducing the number from 13 to 5. Due to the uncertainty of their future, the Association felt it was not a good time and would not participate in the survey. The Nutrition Manager for IDA then offered to send the survey to several independent kitchens and senior centers in Iowa. The senior centers were asked to share the survey with other senior centers. The Kitchen Manager Survey and associated cover letter is attached in Appendix A.

Eleven completed kitchen manager surveys were received. Due to the change in how the kitchen manager survey was distributed, we did not have a listing of the total number of centers that received the survey, so we could not measure whether we met our target of 60% completed by the sites who received them. We did meet our target of at least four interested areas in Iowa. The kitchen locations for completed surveys were mapped on the state of Iowa. Five geographic areas with interest were Linn, Story, Polk, Jasper and Marion counties. Carlene Russell also shared that the individuals who answered the survey many not have been the one in control over the kitchen site since they rent the space. This may have caused them to answer negatively about processing in their kitchen since this would not be their decision to make. Carlene also thought that potential liability issues may have impacted whether the manager was open to processing in their kitchen. A complete report of the kitchen manager survey results is attached in Appendix B.

The 54-producer list to receive the producer survey was compiled with input from Jason Grimm, Craig Chase, Gary Huber, Beth Larabee, Dawn Allspach (Marion County Senior Center), Mary Ellen Metzger (Heartland Senior Services in Ames), Linda Naeve (Value Added Agriculture-ISU), Joe Hannan (State

Horticulturist – ISU), and Marilyn Anderson (Local Harvest). The producer survey was sent February 3, 2012 and was made available in electronic and paper form. There were 29 completed electronic surveys returned (and zero paper surveys). The targets were to have completed producer surveys in at least 30% of the identified counties, and identify at least 2 areas where both kitchen managers and producers were interested for convening the two focus groups. Both targets were met with 70% of completed surveys from identified areas, and Ames and Cedar Rapids identified as focus group locations. The Producer Survey and associated cover letter is attached in Appendix C. A complete report of the producer survey results is attached in Appendix D.

Focus Group Development and Outcomes

Linda Gobberdiel, project consultant, worked with Carlene Russell (IDA) and the two identified kitchen managers to identify dates and times for holding the two focus groups. An initial set of focus group questions was developed by Linda Gobberdiel, Carlene Russell, and Beth Larabee in early March. These questions were then shared with the Iowa Food Systems Council Economic Development Work Group for feedback on March 6. An outline was then developed to follow at both focus group gatherings (attached in Appendix E.) All kitchen managers and producers who responded to the initial surveys were invited to the focus groups (unless they expressed no interest in the project). There was also a posting on the PFI listserv, an email to the Regional Food System Working Group members in Linn County, and to both kitchen managers asking them to promote as well. DIA agreed to send at least one representative to each focus group to answer questions and clarify issues that arise. Copies of DIA's power point entitled "Food Processing: Licensing Requirements" were also made available at each focus group. There was no formal slide presentation as the focus of the meetings was informal discussion.

The focus groups were held at Heartland Senior Center in Ames on Monday, March 12, and at Horizons in Cedar Rapids on March 13. There were 18 participants in Cedar Rapids, and 19 participants in Ames. (Attendee lists attached in Appendix F) Notes were taken and a summary of the results of both focus groups is found in Appendix G. There were eleven current and potential markets for value-added products identified between both groups. Twenty five possible products for processing at the licensed kitchens were suggested. DIA representatives clarified important considerations for both the kitchen and producers regarding licensing. A list of questions that DIA will ask during the initial conversation with a producer is attached in Appendix H.

"Well written rental agreements are beneficial to both the kitchen and the producer."

Kitchen access, cleanliness following processing, and storage for equipment, ingredients, and finished products were discussed and will be included in the agreement between the kitchen and the producer. Sample agreement templates and associated policies are attached in Appendix I. Scheduling for kitchen processing was not a concern at either focus group for the kitchen managers and the producers. Liability insurance was discussed briefly in that both the kitchen and the producer will need to carry their own insurance. Business plans need to be developed by the producers and business plan resources are attached in Appendix J. Other comments included that some facilities may not have a license (such as some church kitchens) but the producer can hold a license to use a specific unlicensed kitchen. Rental rates for kitchen usage were discussed and sample rates are found in Appendix K. Interest for information on FDA labeling was expressed and is found in Appendix L. A variety of additional resources are found in Appendix M including training opportunities, links to Iowa-based licensing and regulations, and existing licensed kitchens in Iowa involved in this project and also available to rent.

Action Plans Developed

Following the focus group meetings, Linda Gobberdiel, project consultant, met once again with each kitchen manager individually in Cedar Rapids and Ames to discuss the action plan for their kitchen. Cost of implementing processing at their respective licensed kitchen was addressed and included in each Action Plan (found in Appendix N.)

The steps toward offering processing in each kitchen location were similar, thus, the General Action Steps for Kitchen Managers was developed and is attached in Appendix O.

Beneficiaries

Kitchen managers of existing licensed kitchens and individuals wanting to process a product benefited from this project from the following outcomes:

- action plans and templates developed can be used by kitchen managers to save time as they consider offering processing in their own facility (Appendix I, J and O)
- projected costs from two existing licensed kitchens to set up a processing service can also be used as a resource for kitchen managers considering this new business service (Appendix K and N)
- growers and other individuals who want to process can use the project information to understand steps to take in approaching existing licensed kitchens about renting their facility
- resources from Iowa Department of Inspections and Appeals in this project can be used by kitchen managers and potential processors to understand the regulatory considerations in renting kitchen space and in processing products (Appendix H)

Lessons Learned

As a result of this study, the following conclusions emerged:

- There is interest among kitchen managers and specialty crop producers in Iowa to process Iowa specialty crops and to make licensed processing facilities more readily available.
- Department of Inspections and Appeals involvement is important from the beginning.
- There are many regulations and licensing considerations but they are not insurmountable.
- The amount of time to offer processing in an existing licensed kitchen can be minimized using resources such as templates for agreements between kitchens and producers.
- The cost to start processing in an existing licensed kitchen can be minimized by starting with a limited number of products using available kitchen equipment, and choosing products and markets that have fewer regulatory challenges.

Contact Person

Linda Gobberdiel, RD LD

515-321-7853

gobberdiel@aol.com

Additional Information

This study was made possible through the support of USDA and the Iowa Department of Land Agriculture and Stewardship in partnership with the Iowa Food Systems Council. Principle Investigator, Linda Gobberdiel, RD LD, Food and You, LLC. Co-investigator Beth Larabee, MS, Larabee Consulting, have also produced a short booklet, "Feasibility of Fruit and Vegetable Value-added Processing in Iowa's Congregate Meal Site Kitchens" describing the highlights of this project. This booklet is free and may be obtained by contacting the Linda Gobberdiel at gobberdiel@aol.com

IOWA FOOD SYSTEMS COUNCIL

Cultivating a just and diverse food system which supports healthier Iowans, communities, economies and the environment.

Appendix A Cover Letter and link for Kitchen Manager Survey:

As an Area Agency on Aging nutrition director we are reaching out to you and need your input on a very short survey (at the link below). If someone other than you manages or owns the kitchens you use, would you please forward this survey to them? The survey should take no more than 10 minutes to complete.

The purpose is to learn your interest in earning additional income by renting out your congregate meal kitchen at times it is not used and supporting local food growers. You are not committing to anything in answering this survey.

The Iowa Food Systems Council received a Specialty Crop Block Grant to study the feasibility of congregate meal site kitchens adding light processing for locally grown fruit, vegetable and nut crops. Information about Specialty Crop Block Grants is available at: http://www.iowaagriculture.gov/Horticulture_and_FarmersMarkets/specialtyCropGrant.asp.

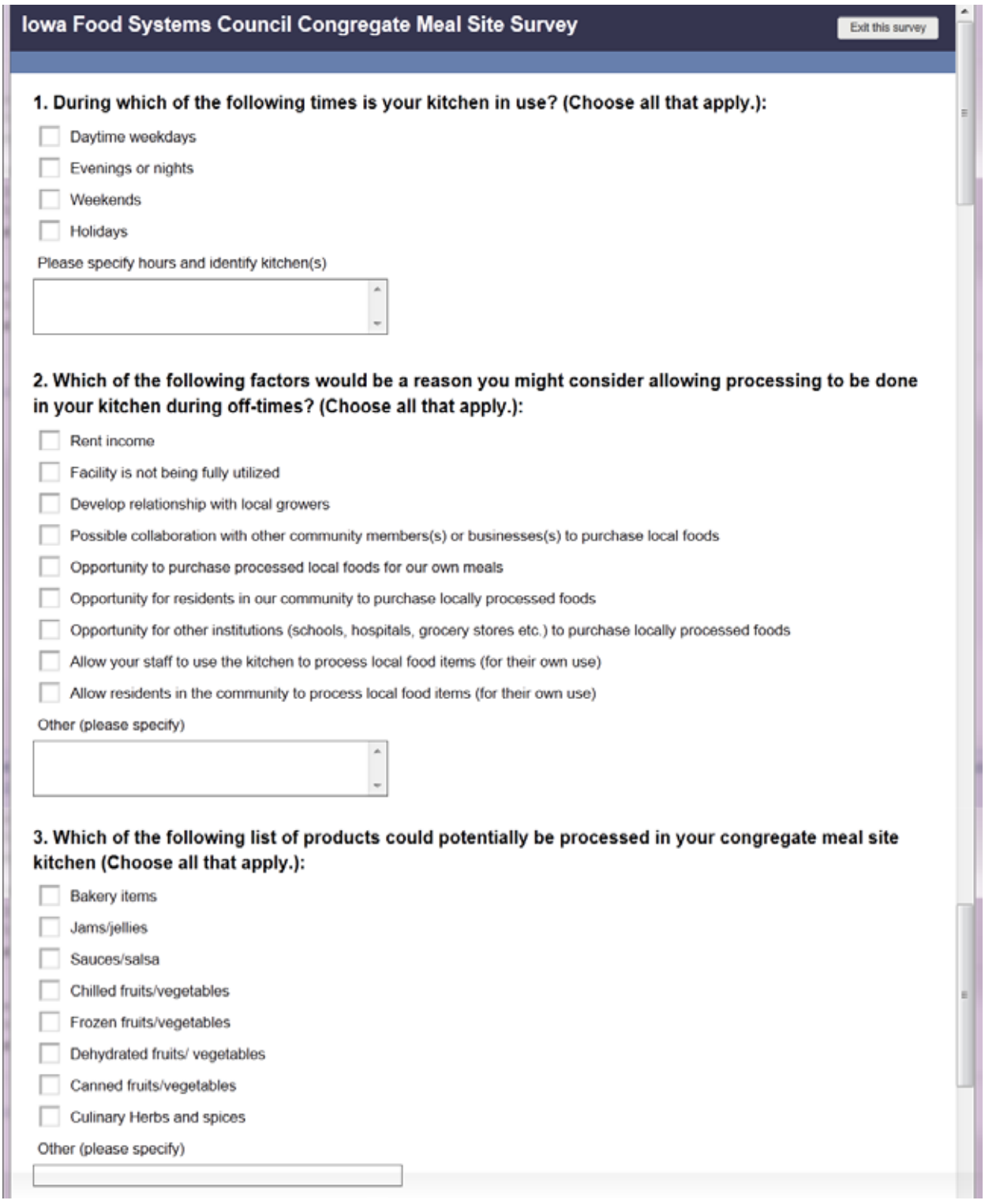
In addition to this survey, the following remaining steps will be taken:

- A second survey of producers/growers near congregate meal site kitchens that have some interest in potentially adding light processing
- Two focus groups will then be held at or near two congregate meal site kitchens that have interest both from the coordinator of the meal site and from local growers in the area.
- A feasibility report will then be written that documents the process for adding light processing using congregate meal site kitchens in Iowa.

Click here to participate in the survey http://www.surveymonkey.com/s/7Q5PZ6J. Please complete by January 19, 2012.

If you do not have internet access, a print version of the survey is available by calling Linda Gobberdiel at 515-321-7853 or Beth Larabee at 515-291-5457.

Thank you in advance for taking a few moments to complete this survey. Please feel free to contact either one of us if you have questions or additional input.



Iowa Food Systems Council Congregate Meal Site Survey Exit this survey

1. During which of the following times is your kitchen in use? (Choose all that apply.):

- [ ] Daytime weekdays
- [ ] Evenings or nights
- [ ] Weekends
- [ ] Holidays

Please specify hours and identify kitchen(s)

2. Which of the following factors would be a reason you might consider allowing processing to be done in your kitchen during off-times? (Choose all that apply.):

- [ ] Rent income
- [ ] Facility is not being fully utilized
- [ ] Develop relationship with local growers
- [ ] Possible collaboration with other community members(s) or businesses(s) to purchase local foods
- [ ] Opportunity to purchase processed local foods for our own meals
- [ ] Opportunity for residents in our community to purchase locally processed foods
- [ ] Opportunity for other institutions (schools, hospitals, grocery stores etc.) to purchase locally processed foods
- [ ] Allow your staff to use the kitchen to process local food items (for their own use)
- [ ] Allow residents in the community to process local food items (for their own use)

Other (please specify)

3. Which of the following list of products could potentially be processed in your congregate meal site kitchen (Choose all that apply.):

- [ ] Bakery items
- [ ] Jams/jellies
- [ ] Sauces/salsa
- [ ] Chilled fruits/vegetables
- [ ] Frozen fruits/vegetables
- [ ] Dehydrated fruits/ vegetables
- [ ] Canned fruits/vegetables
- [ ] Culinary Herbs and spices

Other (please specify)

4. What equipment do you currently have in your congregate kitchen that might be used for the above selections (Choose all that apply.):

- [ ] Large sinks for washing
- [ ] Cutting boards and knives for cutting
- [ ] Pots and pans for cooking value added products such as jam and jelly
- [ ] Large stove top
- [ ] Stainless steel counters
- [ ] Racks and baking sheets for baking and/or drying fruits, vegetables, or herbs

Other (please specify)

5. Which of the following factors would be a concern for you and your staff? (Choose all that apply.):

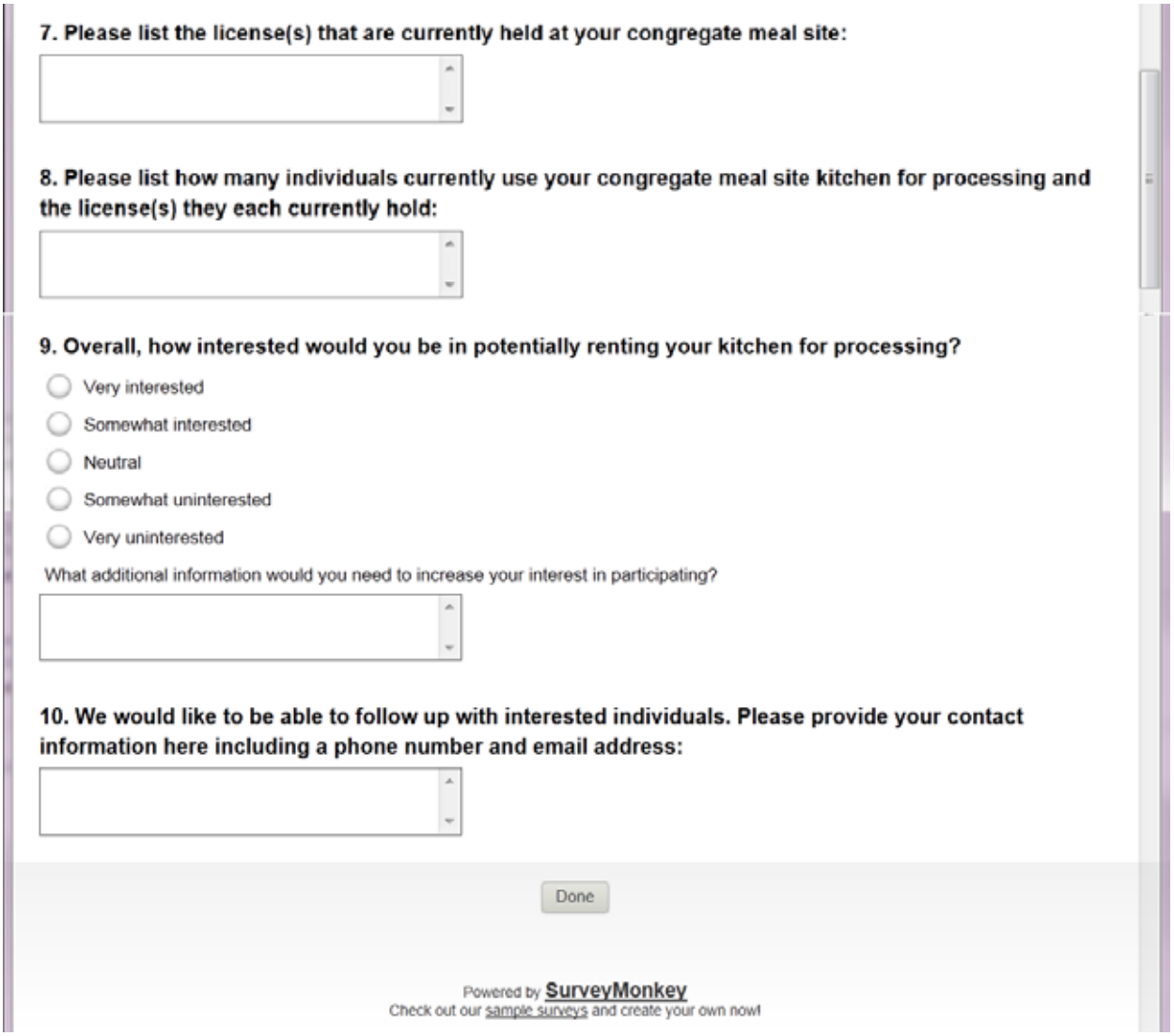
- [ ] Scheduling
- [ ] Licenses and regulations
- [ ] Access to the building
- [ ] Liability insurance for kitchen
- [ ] Liability insurance for local growers
- [ ] Depreciation of equipment
- [ ] Sufficient storage
- [ ] Sufficient refrigerators
- [ ] Sufficient freezers
- [ ] Cleanliness of kitchen following processing
- [ ] Supervision as processing is being done

Other (please specify)

6. Which of the following trainings have you and/or your staff completed? (Choose all that apply.):

- [ ] ServSafe®
- [ ] Prometric®
- [ ] National Registry of Food Safety Professionals®.
- [ ] Iowa HACCP Hazard Analysis and Critical Control Point
- [ ] National Environmental Health Association
- [ ] GAP Good Agricultural Practices
- [ ] GMP Good Manufacturing Practices
- [ ] SafeFood Motivators

Other (please specify)



7. Please list the license(s) that are currently held at your congregate meal site:

8. Please list how many individuals currently use your congregate meal site kitchen for processing and the license(s) they each currently hold:

9. Overall, how interested would you be in potentially renting your kitchen for processing?

- Very interested
- Somewhat interested
- Neutral
- Somewhat uninterested
- Very uninterested

What additional information would you need to increase your interest in participating?

10. We would like to be able to follow up with interested individuals. Please provide your contact information here including a phone number and email address:

Done

Powered by SurveyMonkey
Check out our sample surveys and create your own now!

Appendix B Kitchen Manager Survey Results

On January 5, 2012 the Congregate Meal Site Survey was distributed to the Area Agency Nutrition Directors. See Appendix A for survey results and accompanying letter. Eleven surveys were completed and submitted.

The survey inquired about kitchen use at each meal site. Ninety percent of the kitchens were in use during daytime weekdays while sixty percent were used on weekends. Only 40 percent of respondents indicated kitchen use during the evening and twenty percent were used on holidays. See Figure 1.

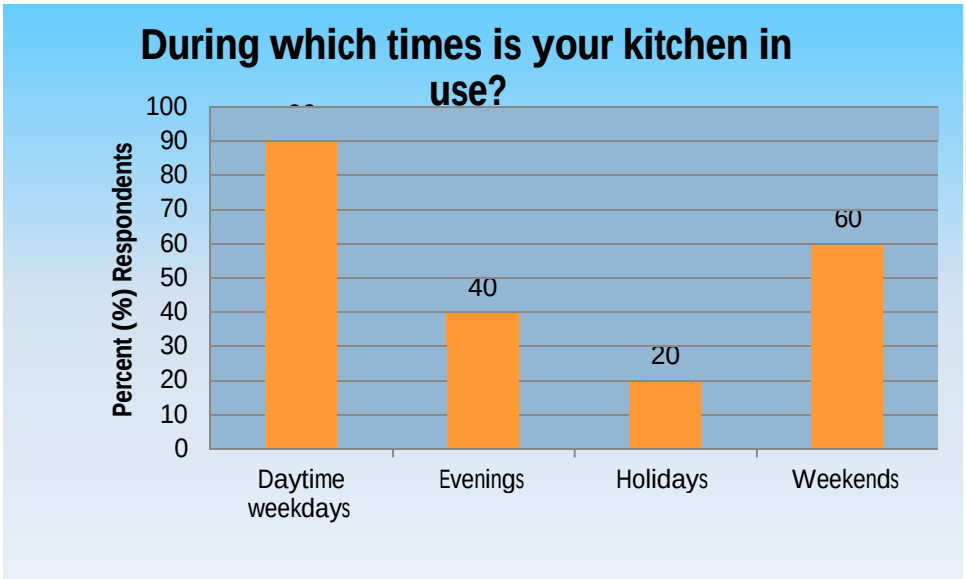


Figure 1. Periods of kitchen use.

When respondents were asked which factors would be a reason you might consider allowing processing to be done in your kitchen during off times. Ninety percent of respondents chose both rent income and possible collaborations with other community members or businesses to purchase local food. Seventy percent also chose developing relationships with local growers and opportunities for residents in our community to purchase locally processed food. Other reasons cited for consideration were; facilities not fully utilized (sixty percent) the opportunity to purchase processed local foods for our own meals and other institution such as schools, hospitals, grocery stores to purchase locally processed foods (sixty percent). Only twenty percent of respondent would allow residents of the community to use their kitchens to process local food items for their own use. None of the respondents were interested in kitchen staff rental for personal use. See Figure 2.

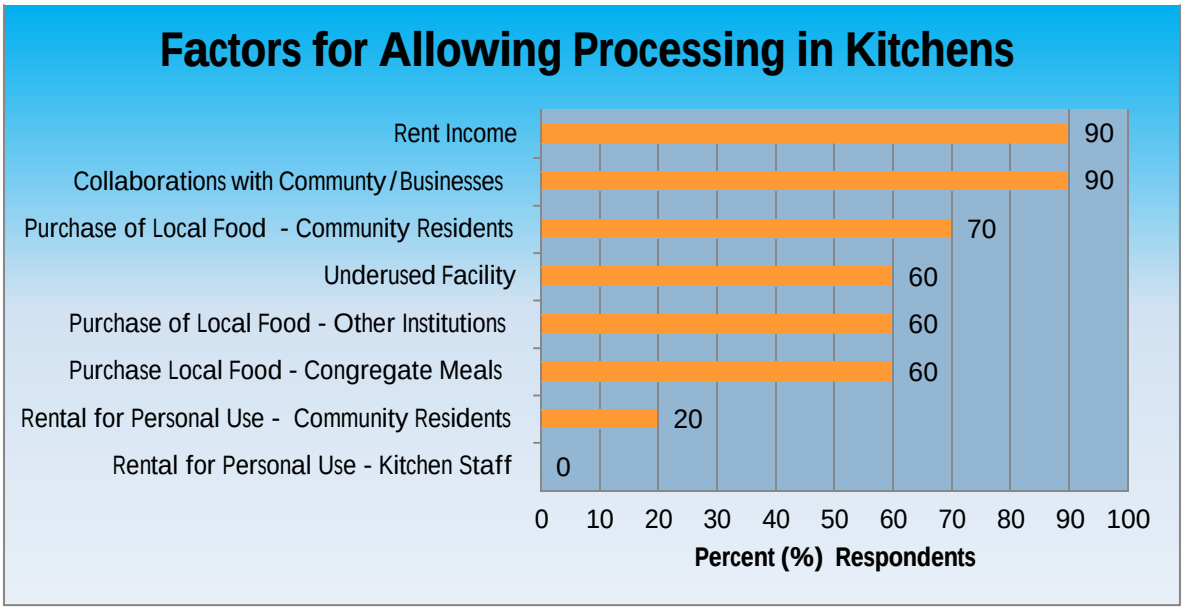


Figure 2. Factors for allowing processing congregate meal site kitchen.

Area Agency Nutrition Directors were asked which items could potentially be processed in their congregate meal site kitchens. All respondents chose jams, jellies sauces and salsa as potential products and ninety percent chose bakery items. Culinary herbs and spices were indicated by seventy percent of respondents followed by frozen or canned fruits/vegetables (sixty percent). Forty percent of respondents indicated a potential for dehydrating fruit and vegetables and none indicate chilled fruits/vegetables as an option. See Figure 3.

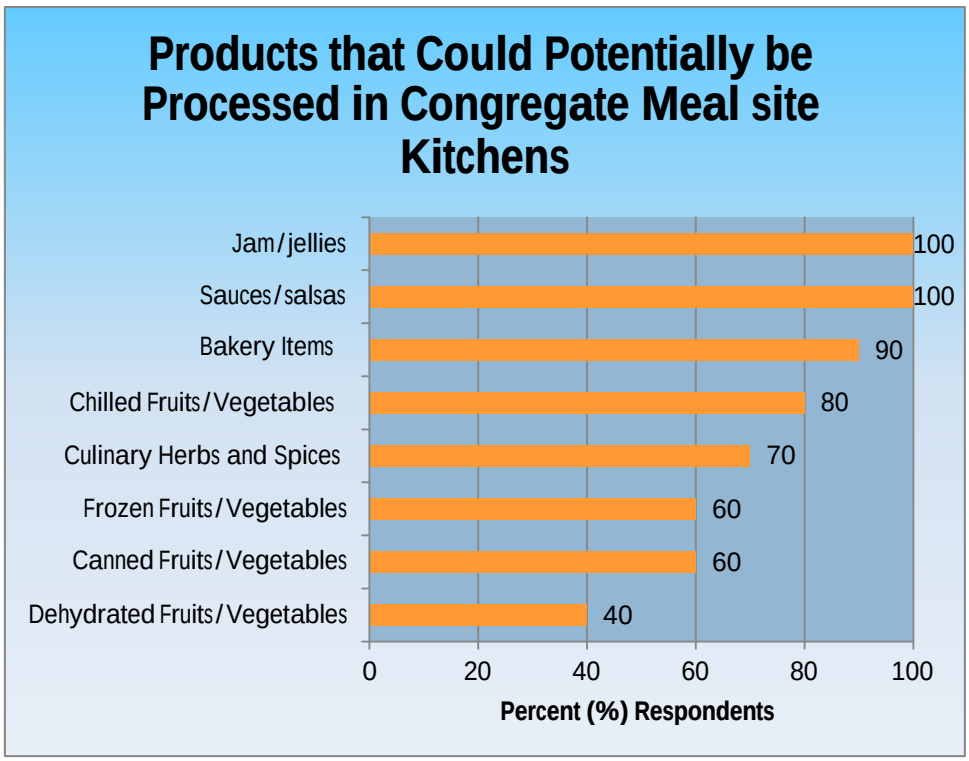


Figure 3. Product that could potentially be processed in congregate meal sites.

Equipment availability in kitchens varied wildly. One hundred percent had large sinks, ninety one percent had a large stove top. Eighty two percent of respondents had cutting boards and knives while seventy three percent had stainless steel counters installed in their kitchens. Baking and drying racks were present in sixty four percent of the kitchens while just over half (fifty five percent) had pots and pans. See Figure 4.

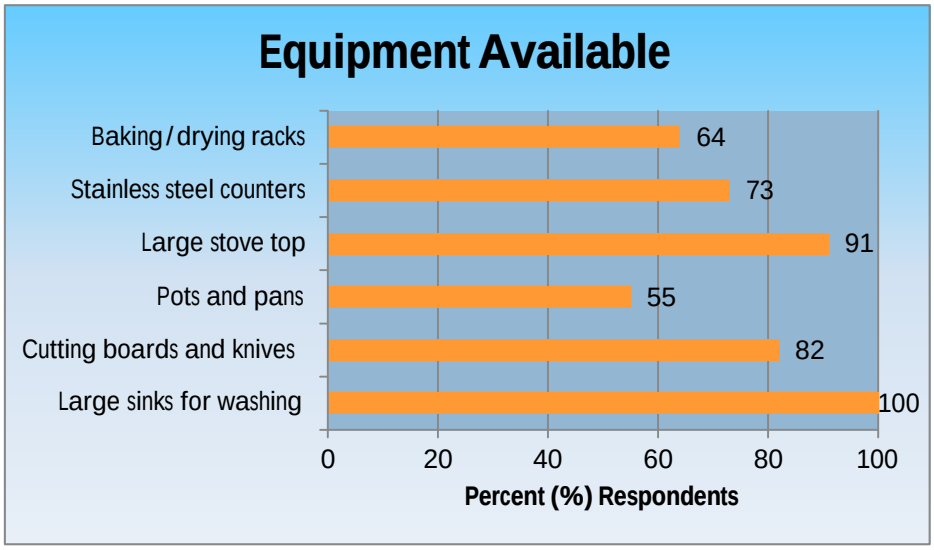
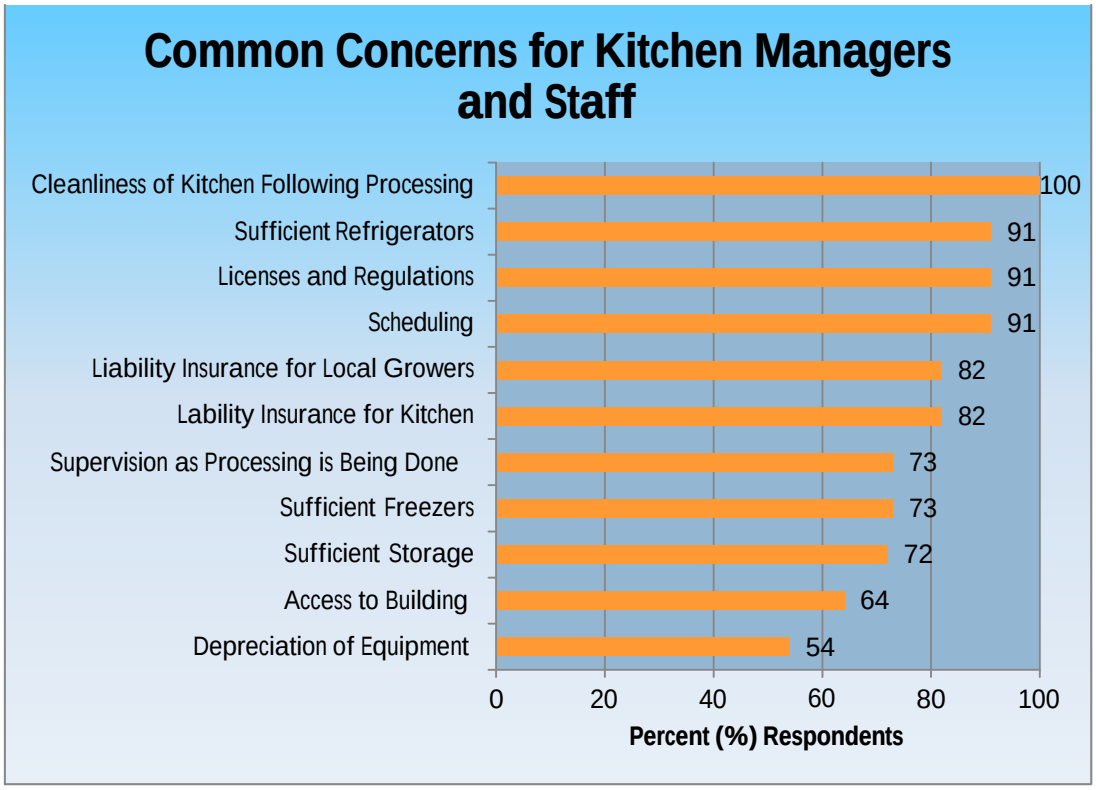


Figure 4. Equipment availability in congregate meal site kitchens.

Directors and staff of the kitchens had many concerns. All (one hundred percent) of the kitchen managers cited cleanliness of kitchen following processing as a major concern. Sufficient refrigerator space, licenses and regulations and scheduling were cited by ninety one percent of respondents. Eighty two percent of participant's citied liability insurance for both the grower and the kitchen as a concern. Supervision during processing, sufficient storage and frozen storage tied at seventy three percent as concerns. Depreciation of equipment was of concern for fifty four percent of respondents. See Figure 5.



Figures 5. Factors of concern for directors and staff.

When asked about the training completed by staff members, one hundred percent had completed ServSafe® and twelve percent had completed National Registry of Food Safety Professionals® training. None of the directors responded positively to the following trainings; Iowa HACCP Hazard Analysis and Critical Control Point, National Environmental Health Association, GMP Good Manufacturing Practices, GAP Good Agricultural Practices, or SafeFood Motivators. See Figure 6.

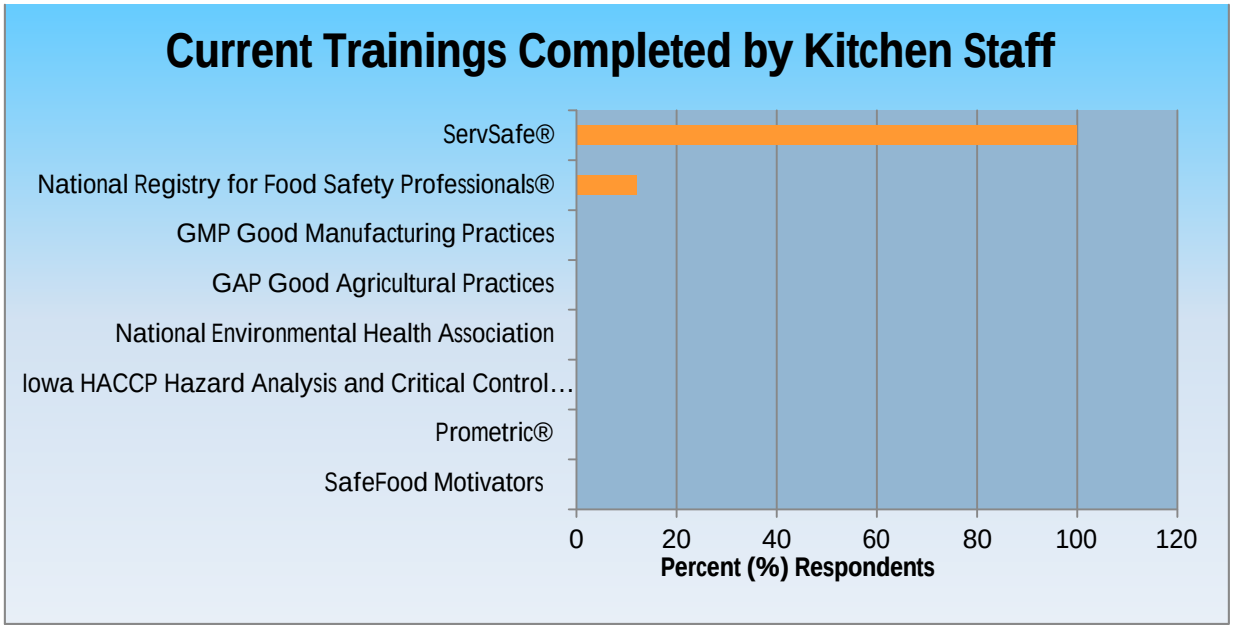


Figure 6. Current training completed by kitchen staff.

When asked what licenses that are currently held by your congregate meal site, eight of the respondents had a Food Service/Restaurant License with one also holding a bingo license. Three respondents skipped the question

Seven of the respondents chose to list how many individuals currently use your congregate meal site kitchen.

- I have 4 kitchens only have restaurant license
- 1 cook or 1 kitchen manager that cooks 7 days per week. We serve 50 residents 3 meals per day/days per week.
- currently not being used
- Just Meals On Wheels
- Knoxville-4 individuals (staff & volunteers) food service
- None

When asked how interested they would be in potentially renting their kitchen for processing fifty five percent were somewhat interested, eighteen percent were very interested and nine percent each were neutral, somewhat uninterested or very uninterested. See figure 7.

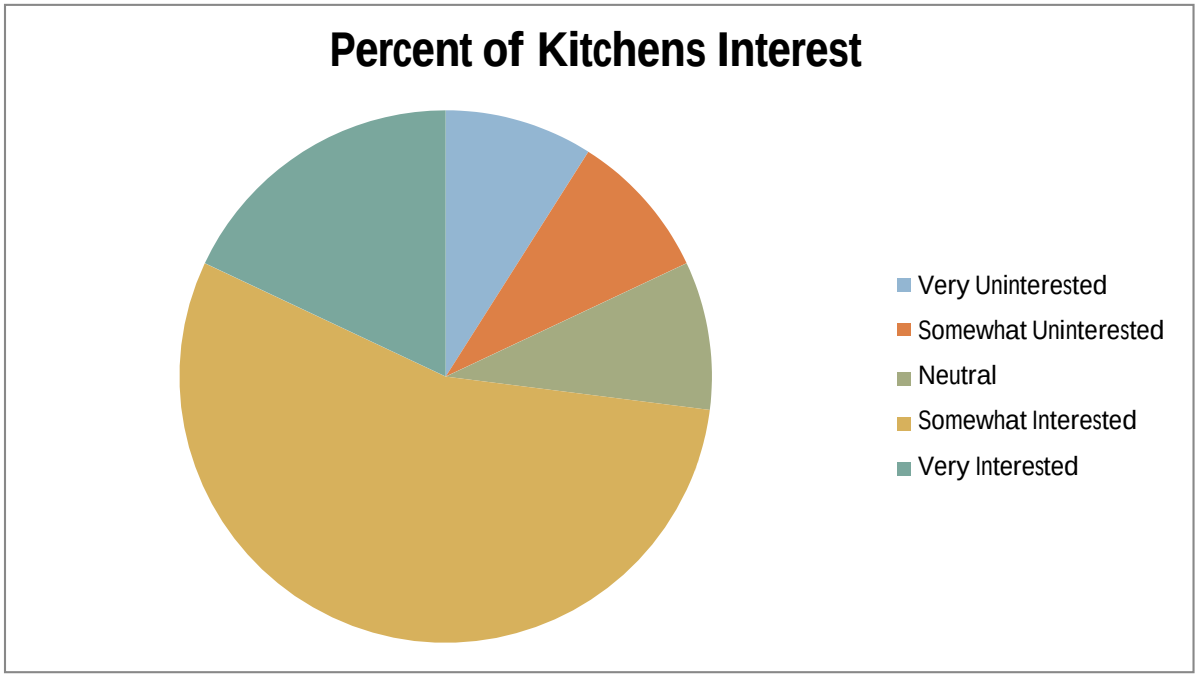


Figure 7. Percent of kitchens interested in renting kitchens.

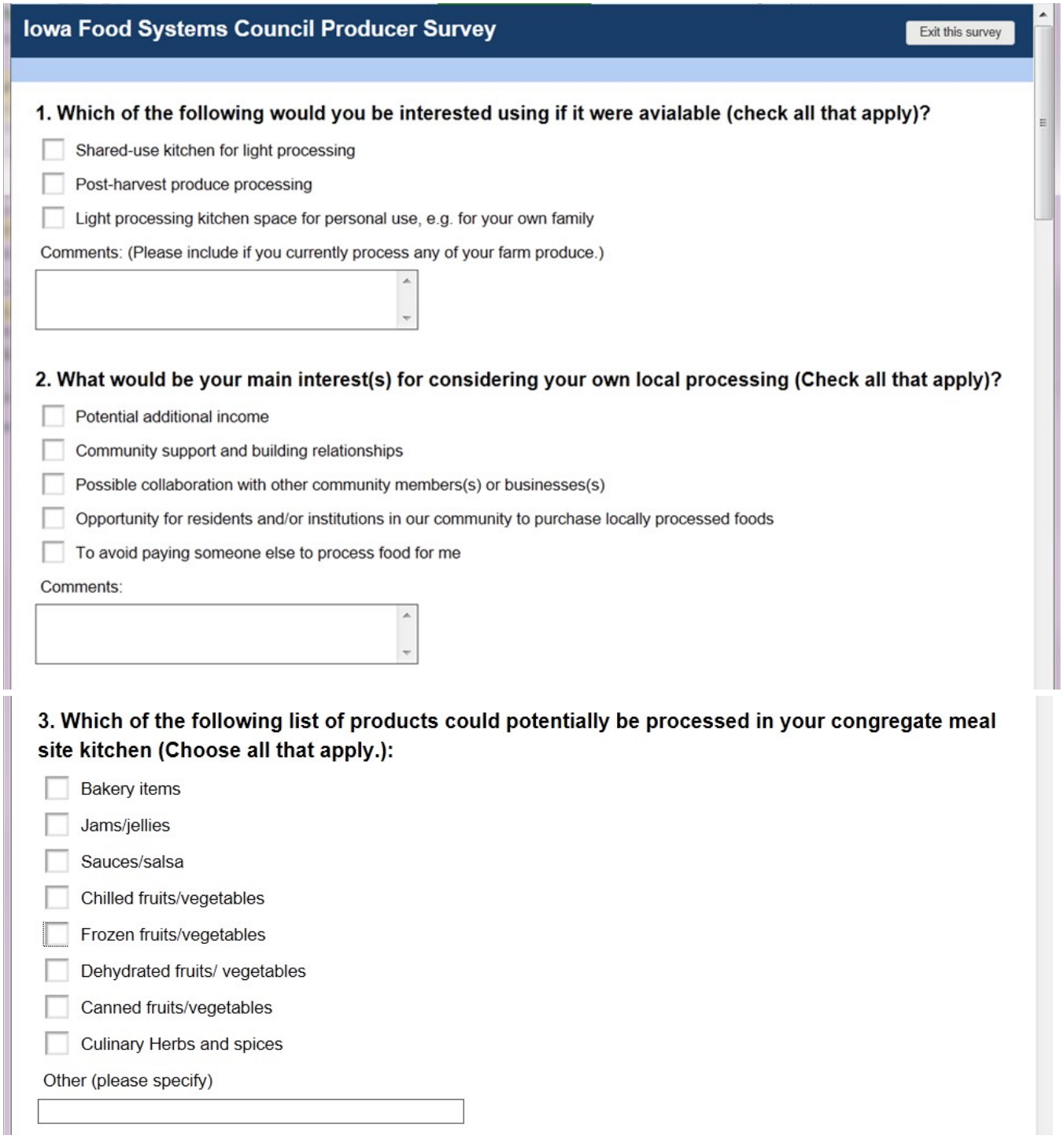
Nine respondents provided contact information for follow-up.

Appendix C Cover Letter and link for Producer Survey:

As a local grower in Iowa, you are receiving this short survey to ask for your input. I am working on a project to support processing of foods grown in Iowa.
We have already surveyed senior centers and congregate meal site kitchen managers in your area to learn if they might rent their licensed kitchen space for local processing (when they are not using their kitchen to prepare meals). Some managers in Polk, Marion, Linn, Jasper, and Story counties responded favorably, so now we need to learn your interest.

Please answer the survey that is available at the following link (just double click on the link):
http://www.surveymonkey.com/s/9B32CZX
The survey is 10 questions and should take a few minutes to complete. This does not commit you to anything. We just need your input from a producer perspective. I need to receive your completed survey by Friday, February 17.

Following this survey, we will choose two communities to visit and talk more in person about what specific steps would be necessary to make the processing kitchen available for your use. I look forward to your input!
If you prefer to answer a hard copy survey and mail it to me, please call me at 515-321-7853 (and leave your name and mailing address if you reach my voice mail.)
Thank you, and feel free to contact me with any questions



Iowa Food Systems Council Producer Survey Exit this survey

1. Which of the following would you be interested using if it were avialable (check all that apply)?

- [ ] Shared-use kitchen for light processing
- [ ] Post-harvest produce processing
- [ ] Light processing kitchen space for personal use, e.g. for your own family

Comments: (Please include if you currently process any of your farm produce.)

2. What would be your main interest(s) for considering your own local processing (Check all that apply)?

- [ ] Potential additional income
- [ ] Community support and building relationships
- [ ] Possible collaboration with other community members(s) or businesses(s)
- [ ] Opportunity for residents and/or institutions in our community to purchase locally processed foods
- [ ] To avoid paying someone else to process food for me

Comments:

3. Which of the following list of products could potentially be processed in your congregate meal site kitchen (Choose all that apply.):

- [ ] Bakery items
- [ ] Jams/jellies
- [ ] Sauces/salsa
- [ ] Chilled fruits/vegetables
- [ ] Frozen fruits/vegetables
- [ ] Dehydrated fruits/ vegetables
- [ ] Canned fruits/vegetables
- [ ] Culinary Herbs and spices

Other (please specify)

4. What equipment would need to be available for you to process food (Check all that apply)?

- [ ] Stainless steel tables
- [ ] Standard range/oven
- [ ] Commercial mixer
- [ ] Food processor
- [ ] Dish washer
- [ ] Vegetable washer
- [ ] Dehydrator/drying equipment
- [ ] Vegetable sorter
- [ ] Dry storage space
- [ ] Commercial refrigerator/freezer
- [ ] Pots and pans, sheet pans, etc.

Other (please specify)

5. What potential products would you be interested in processing (Check all that apply)?

- [ ] Bakery items
- [ ] Sauces/salsas
- [ ] Jams/jellies
- [ ] Frozen products
- [ ] Canned products
- [ ] Dehydrated fruits and vegetables
- [ ] Condiments/spices
- [ ] "Seconds" to make a new product
- [ ] Gleaned harvest that someone else processes for you

Other (please specify)

6. How often would you potentially process food products?

- [ ] Daily
- [ ] Twice per week
- [ ] Once per week
- [ ] Twice per month
- [ ] Once per month
- [ ] Once per year

Comments:

7. Months of the year that you would plan to process product (check all that apply)?

- [ ] January
- [ ] February
- [ ] March
- [ ] April
- [ ] May
- [ ] June
- [ ] July
- [ ] August
- [ ] September
- [ ] October
- [ ] November
- [ ] December

8. What safety training you have completed and that is current?

9. How interested are you in utilizing a kitchen for processing within 25 miles of your farm?

- [ ] Very interested
- [ ] Somewhat interested
- [ ] Neutral
- [ ] Somewhat uninterested
- [ ] Very uninterested

What would be a reasonable rent per hour in your estimation?

10. Please provide your contact information, including your county, so that we can follow up with you?

Done

Powered by SurveyMonkey
Check out our sample surveys and create your own now!

Appendix D Producer Survey Results

On February 10, 2012 the Specialty Crop Producer Survey was distributed to the fruit and vegetable growers in central Iowa. Twenty nine surveys were completed and submitted.

Eighty three percent of respondents were interested in shared-use kitchen rental for light processing, fifty eight percent were interested in post-harvest produce processing and only four percent were interested in processing for personal use. See Figure 1.

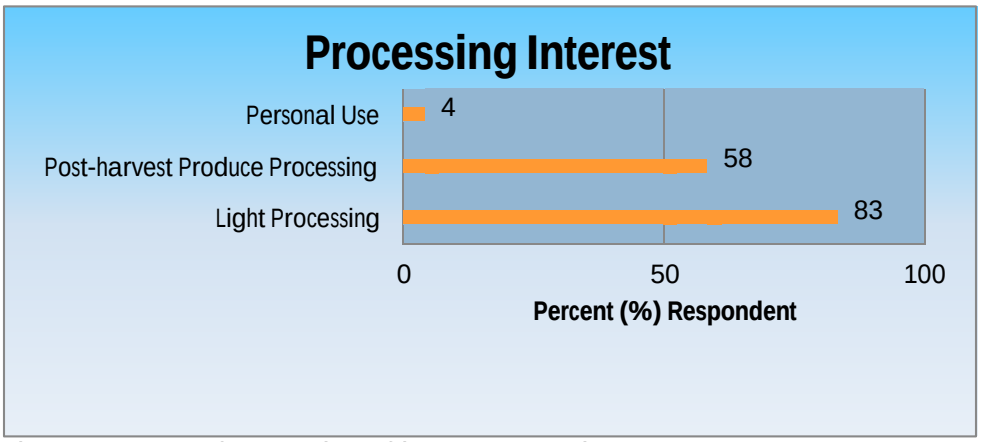


Figure 1. Types of processing of interest to producers.

When asked about their interests for considering their own local processing, eighty eight percent chose potential additional income followed by opportunity for residents and/or institutions in our community to purchase locally processed foods at fifty eight percent. Thirty eight percent of respondent sited community support and building relationships and collaboration with other community members(s) or businesses(s) as reasons for considering local processing. Those wishing to avoid paying someone else to process for them was chosen by thirteen percent of respondent. See Figure 2.

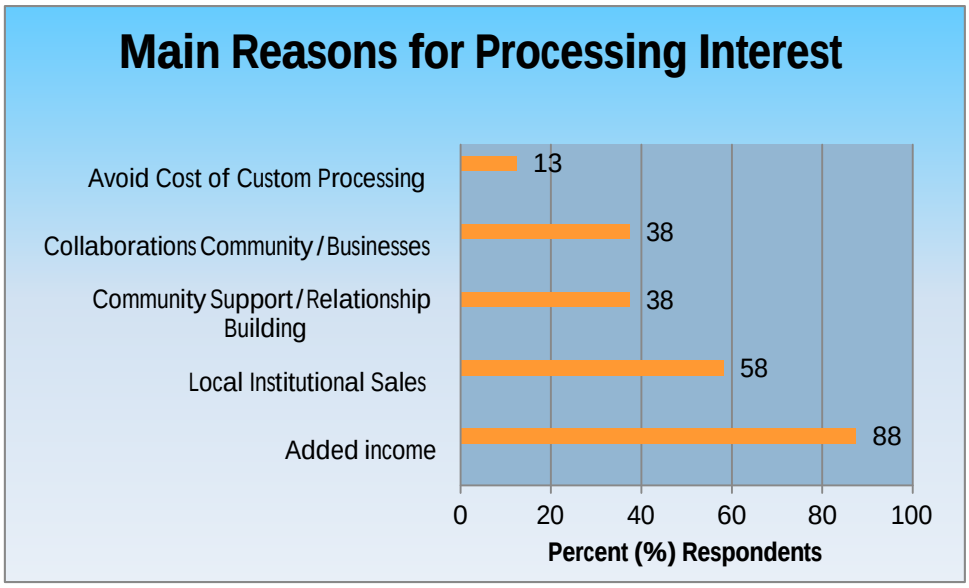


Figure 2. Main interest of producers for considering their own processing.

Regarding concerns about processing in a licensed kitchen, producers were most concerned about regulation, (seventy five percent), closely followed by access to the kitchen at sixty seven percent. Scheduling, equipment and insurance and cleanliness were relatively equal, and processing supervision of least concern. See Figure 3.

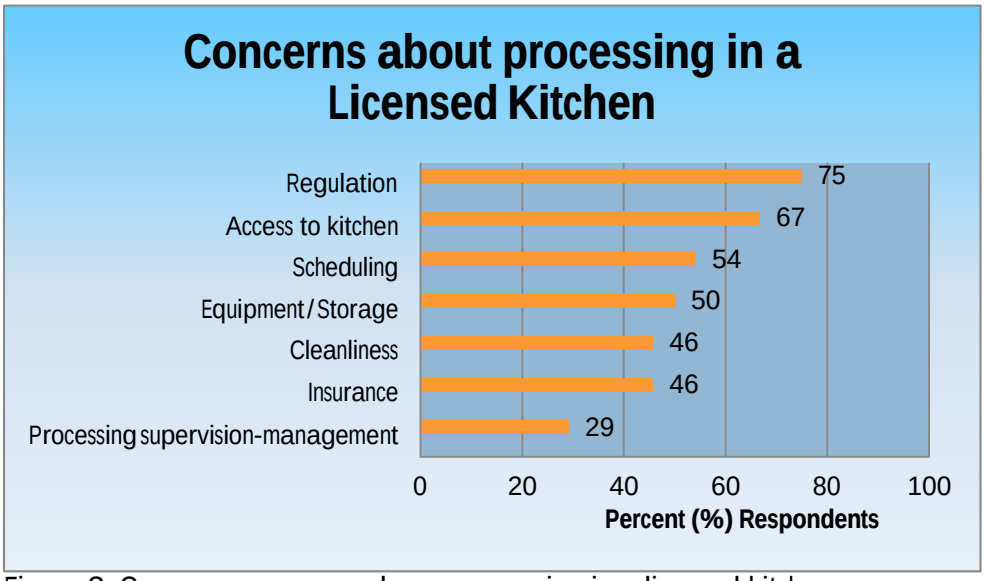


Figure 3. Concerns among producers processing in a licensed kitchen.

Comments:

- I believe our regulations need to be reviewed to address excessive regulation.
- It would have to be easy to use and an easy process to rent the space. Too many hoops and it would be a non-starter.
- All of these are potential problems. But a clean place with good equipment that meets regs is most important.
- No concerns at this time.
- I'm on the board of our community center where there is a licensed kitchen. All these issues would be considerations for a person using our kitchen.

Equipment needs were diverse with seventy seven percent of producers needing stainless steel tables and sixty eight a standard range/oven followed by dish washer at fifty nine percent. Food processors, pots and pans, refrigerators/freezers and drying equipment followed. Less necessary to producers were vegetable washers, storage space, commercial mixers and vegetable sorters. See Figure 4 for percent of respondents requiring each category of equipment.

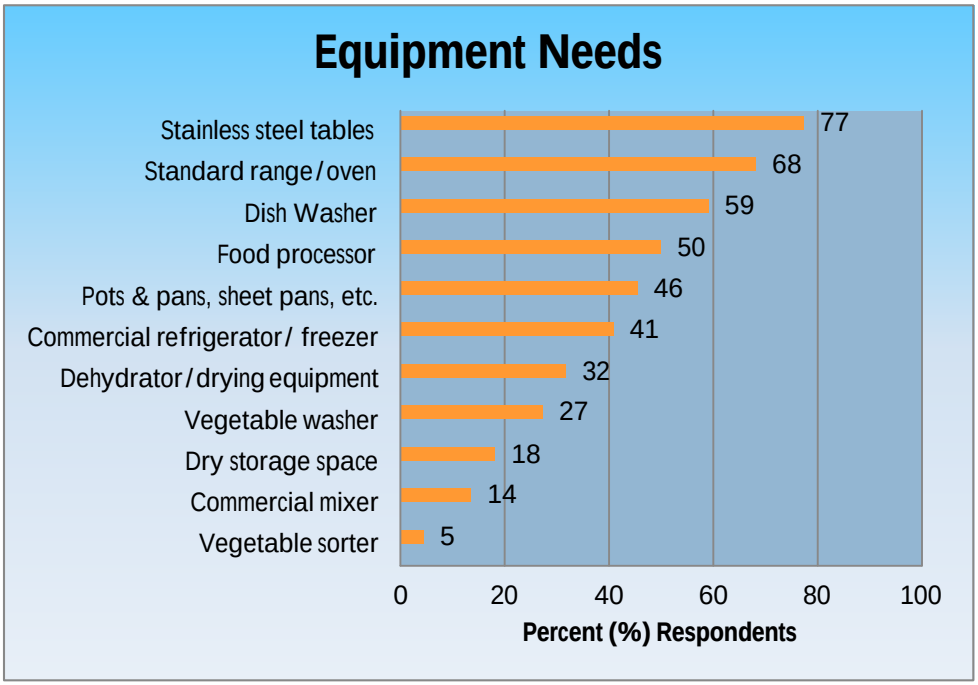


Figure 4. Equipment needs of producers processing in a licensed kitchen.

Comment:

- We are mostly interested in providing "ready-to-eat" veggies for consumers.
- Steam kettles
- Didn't check vegetable washer, though it would be nice--we really just need a big sink area, etc. to do a final sanitization of the veggies.
- A high output range or stove top would be most important for canning
- I have no direct interest in acquisition for processing; mainly production/distribution
- Not interested

Products with the most interest to producers were sauces and salsas with seventy one percent of respondent interested and forty three percent interested in jams and jellies. Thirty eight percent chose frozen, canned, and dehydrated products equally as well as condiments and spices. Twenty four percent were interested in processing "seconds" into a value added item. See Figure 5.

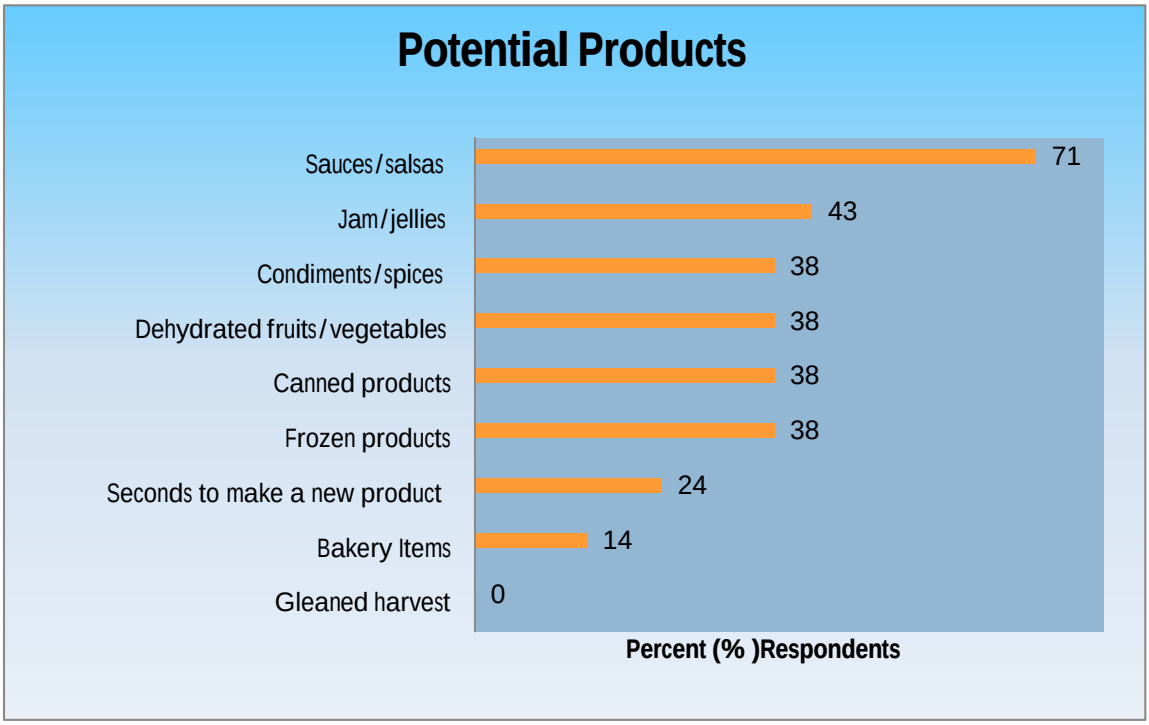


Figure 5. Potential products of interest to producers

Comments:

- Medicinal tinctures, dried herbs
- Washing vegetables
- Pesto, tomato sauce/salsa, dried cherry tomatoes
- We would be using our own produce, so seconds
- Peeling garlic for commercial use, drying garlic, sheet freezing edamame and aronia berries. I would also be interested in packaging bagging equipment for frozen edamame, aronia berries and dried shell beans
- Prepared food like chopped vegetables
- Quality excess to be consumed during winter season
- Not interested

Producers preferred to process once a week with forty six percent choosing that timing followed by twice per month with eighteen percent. Twice per week and one per month were equally chosen at fourteen percent. Only nine percent of respondents chose to process once per year. See Figure 6.

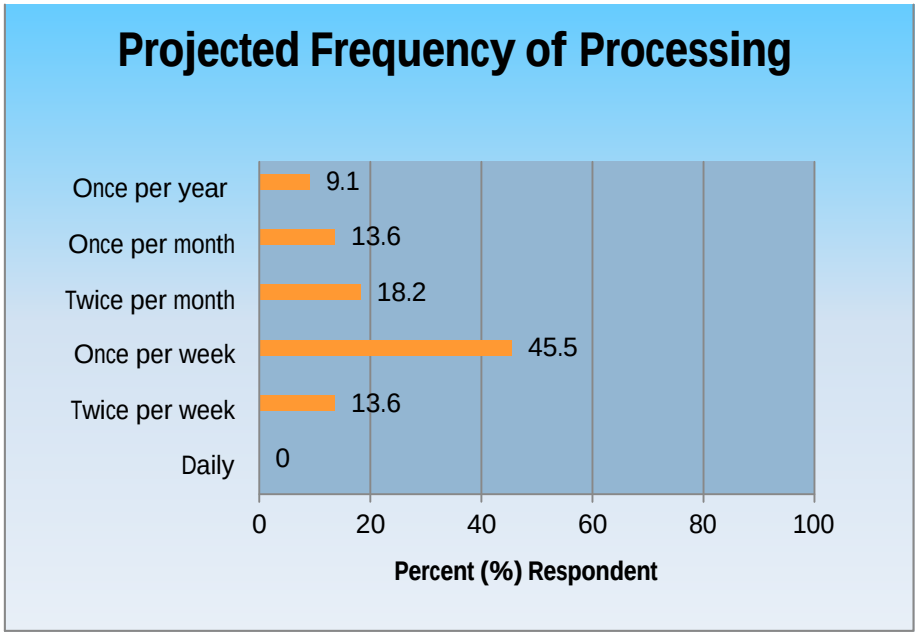


Figure 6. Projected frequency of processing.

Months of the year producers wished to process varied widely with August and September being prime processing months with ninety six percent of producers choosing the heaviest yielding months of the year in Iowa. July and October followed with seventy eight and sixty five percent respectively. Few producers were interested in processing January through April with interest picking up with the growing season. See Figure 7.

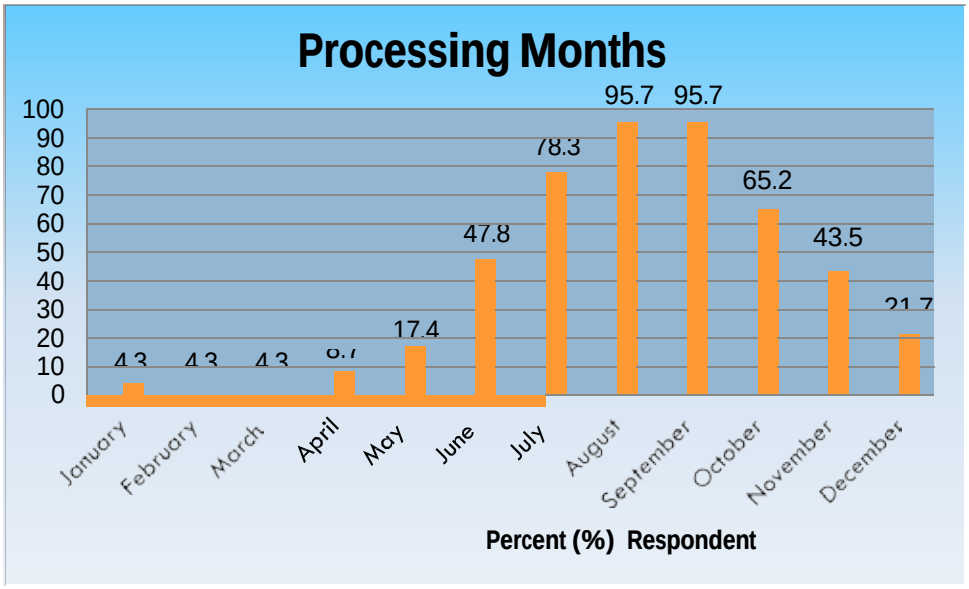


Figure 7. Month producers prefer to process in a licensed kitchen.

When queried about current safety training, sixteen respondents answered the question. Six or thirty five percent had current GAP training, five or twenty nine percent had no training and four or twenty four percent had food safety training (ServSafe or ISU Food Safety), two respondents or twelve percent didn't know. See Figure 8.

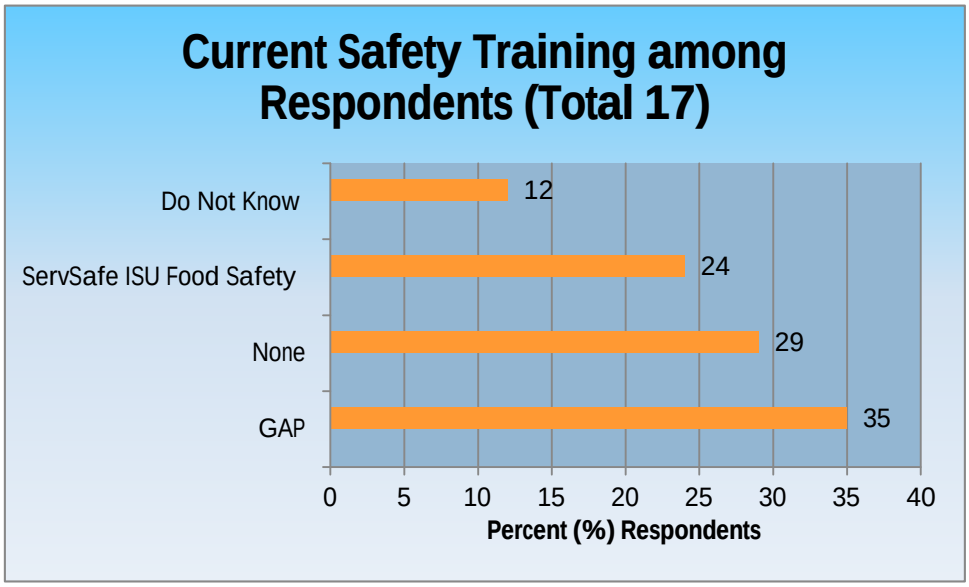


Figure 8. Current safety training reported by respondents.

Seventy seven percent of producers were very interested (thirty three percent) or somewhat interested (forty four percent) in a licensed kitchen within 25 miles of their farm while three percent were neutral or eighteen percent were very uninterested. See Figure 9.

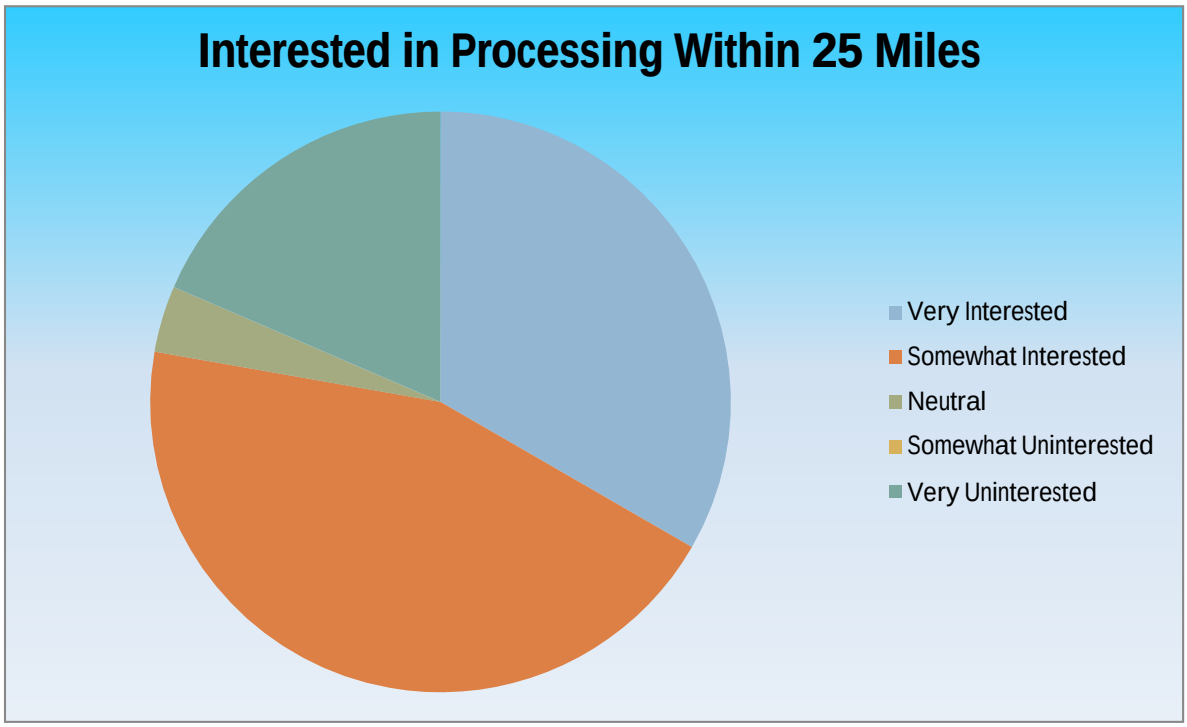


Figure 9. Level of interest of producers in facilities within 25 mile of their farm.

Twenty eight of twenty nine producers responding to the survey contributed contact information.

Appendix E Outline for Focus Group Gatherings.

March 2012

Outline for Focus Group gatherings:

As attendees arrive and get name tags, we will hand out the attached survey to complete, and a copy of slides from Scott Platt (Department of Inspections and Appeals) for their reference.

Then Linda Gobberdiel will welcome and cover the following:

1. Have each person give their name and the name of their farm or business or kitchen, and a simple "ice-breaker" question.
2. Share a very brief overview of steps taken so far to put everything in context.
3. Our goal today – to discuss actionable steps to open a processing operation at an existing licensed kitchen such as this one.
4. Final goal of entire project is a written report that is readily available and outlines the necessary steps to consider in using existing licensed kitchens throughout Iowa for value added processing, and a listing of potential licensed meal site kitchens for specialty crop producers to use.
5. No experts in room. We all have expertise in some things and as we share we all learn and help moving forward. Participation in this focus group does not bind you into any agreement (as a producer or as the kitchen manager) regarding this kitchen and its use. We ask that you share you honest opinions, ideas, concerns and so forth. All input will be kept anonymous. The more open we can be, the more genuine and helpful the information will be.
6. As we ask for input, we will go around and give each person a chance to speak on each item. You may "pass" if you have nothing to say at the time.

Beth Larabee will lead an exercise using a flip chart and record information on:

Markets producer sell to

Potential markets

Products producers would consider processing

Best times to lease the kitchen (for producers and kitchen)

Linda will continue with the following discussions:

There are important considerations from both the kitchen and the producer perspective for any existing licensed kitchen: (these include the top concerns from the surveys completed)

- Regulations impact both kitchen and producer – refer to Scott's slides, involving the Department of Inspections and Appeals from the start is key.

- Licenses for both the kitchen and the producers using the kitchen are often recommended – comments
- Markets you sell to will impact your license as a producer – comments
- Access to kitchen – have producers and kitchens each identify concerns around this
- Equipment/storage – what are your thoughts about touring the kitchen and inventory together (kitchen manager and interested producers) to discuss what is available and what is needed?
- Scheduling – how is this best determined? Should there be a group meeting between interested producers and kitchen representatives to discuss this?
- Should a joint work group write the business plan for the kitchen site (kitchen and producer members) – thoughts?
- Safety training – what are the needs? Comments
- Cleanliness of kitchen following processing was a common concern on the kitchen manager survey – how can this be addressed?
- One common opportunity on both surveys was opportunities for the community to purchase locally processed foods - comments

Linda will ask if any other comments or questions (if time – need to end by 3:00 pm)

Next step is an action plan including funding ideas and a timeline for opening a processing operation at the site by April 12, 2012.
Thank everyone for time, input, and for kitchen space and arrangements.

Appendix F Focus Group Attendees.

Cedar Rapids Focus Group – March 12, 2012

Diana Young – Horizons kitchen manager
Jason Grimm
Jesse Singerman
Donna Wisnousky
Sonia Kenrick
Laura Krouse
Joan Morningstar
Jeff Kapparos
Nan Fawcett
Roxanne Mitten
Becci Reedus
Mary Palmberg
Scott Platt
James Romar
Carlene Russell
Beth Larabee
Linda Gobberdiel
Jan Swinton

Ames Focus Group – March 13, 2012

Mary Ellen Metzger, Kitchen Manager
Sally Gran
Eric Armbrecht
Dan Beougher
Ann Franzenburg
Joe Monahan
Judy Henry
Dean Henry
2 additional Berry Patch farm workers
James West
Jennifer Olson
Sally Worley
Warren Johnson
Scott Platt
James Romar
Carlene Russell
Beth Larabee
Linda Gobberdiel

Appendix G Focus Group Gatherings.

Handouts: Food Processing: Licensing Requirements- Scott Platt Iowa Department of Inspection and Appeals

Attendee list for each meeting as appendices

Linda Gobberdiel

1. 1Have each person give their name and the name of their farm or business or kitchen, and a simple "ice-breaker" question. Favorite Iowa-grown fruit or vegetable?
2. Share a very brief overview of steps taken so far to put everything in context.
3. Our goal today – to discuss actionable steps to open a processing operation at an existing licensed kitchen such as this one.
4. Final goal of entire project is a written report that is readily available and outlines the necessary steps to consider in using existing licensed kitchens throughout Iowa for value added processing, and a listing of potential licensed congregate meal site kitchens for specialty crop producers to use.
5. No experts in room. We all have expertise in some things and as we share we all learn and help moving forward. Participation in this focus group does not bind you into any agreement (as a producer or as the kitchen manager) regarding this kitchen and its use. We ask that you share you honest opinions, ideas, concerns and so forth. All input will be kept anonymous. The more open we can be, the more genuine and helpful the information will be.
6. As we ask for input, we will go around and give each person a chance to speak on each item. You may "pass" if you have nothing to say at the time.

Results of Flip Chart Exercise

Current and potential markets

- Craft and Gift Stores
- Distributors
- Feeding Programs
- Food Co-ops
- Food Pantries
- Schools including K-12 and post-secondary,
- Other Institutions including hospitals, nursing home, residential care facilities…
- Internet Sales
- Natural Food Stores
- Wholesalers
- Direct to consumer
- Farmers Markets

Suitable times for Producers and Kitchens

Very little discussion, most kitchens serving lunch only would be available after 2-3 p.m. which dovetailed nicely with producer schedules of field harvesting early in the day and processing later the same day.

Possible Products

- Baby Food (fruit and vegetables)
- Bread (fermented food)

- Candy
- Catering
- Cheese (fermented product)
- Co-mingling (broccoli cauliflower mix, mixed frozen vegetables, berry blends)
- Dry dip mix
- Dry soup mix
- Drying-dehydrating fruits and vegetables
- Entrees (locally constructed)
- Fermented products (such as vegetables like cabbage for Kimchi, sauerkraut or soy for soy sauce)
- Freezing (for school use, direct to consumer, co-mingling, wholesale)
- Canned fruits and vegetables
- Grain milling
- Herbal teas
- Jam and Jelly
- Light Processing –washing, cutting, peeling, bunching, packaging
- Pickling (brining)
- Pie filling
- Pizza (locally constructed)
- Processed vegetable chips
- Salsa
- Spaghetti sauce
- Tofu and other soy based products
- Yogurt (a fermented product)

There are important considerations from both the kitchen and the producer perspective for any existing licensed kitchen.

Regulations impact both kitchen and producer – refer to Scott's slides, involving the Department of Inspections and Appeals from the start is key.

- Licenses for both the kitchen and the producers using the kitchen are often recommended. The following are focus group comments:
  - So many licenses seem to be redundant
  - If the kitchen we're using is already licensed, why do we (the producer need a license)
  - Licensing can actually reduce potential liability issues
  - Good Manufacturing Practices (GMP) are not the same as the Food Code
  - Insuring the facility and the producer/processor is key, licensing will likely be required to buy liability insurance
  - Facility licenses for normal daily business may be different than those needed by the producer/processor as they need retail/manufacturing licensing
  - Licensing flow charts would be helpful. Include who to talk to first to learn about the regulation and license requirements, identify if food product is potentially hazardous or not hazardous and when to engage each participant in the process
  - There is a graduated licensing fee depending on the sales volume. Licenses are renewable yearly
  - Continuing education requirement for licenses

  - It is suggested to develop a list of questions that DIA will ask to be prepared for the initial conversation with them prior to contacting DIA for more information.
  - Management of licenses – keeping them up-to-date is a concern
  - Need to address insurance as it will potentially increase with additional processing in kitchens

- Markets you sell to will impact your license as a producer
  - The county sanitarian deals with eggs and home canned salsa at farmers markets.
  - Some examples of licensing requirements: DIA covers licenses for food sold directly to consumers, farmers markets and craft markets and sales to food co-ops needs all need retail license and need to follow the Food Code. Selling whole sale requires different license. Dairy, meat and entrees with more than 3% meat are under USDA jurisdiction. Products with more than 0.5% alcohol fall under the Tobacco and Firearms jurisdiction
  - Farmers Markets (IA admin rules) have very different rules when compared to other possible sales outlets
  - The percentage of product going to different types of sales outlets may determine your licensing requirements
  - Product development, potential sales outlets, licensing, the kitchen facility and business plans are all interlocked. All the players must be involved at the beginning of the planning stage
  - Agreements between the kitchen and the producer/processor are necessary and mutually beneficial. An example is that an expectation for the kitchen is that the required equipment is available and in working order, and for the producer an expectation is to have the required level of training and licensing
  - Sample contracts or agreements to use as guides were requested. Types of licenses held by each party need to be addressed; check in and checkout policies; deposit, product storage, staff on duty, check refrigerator temperatures, equipment is working, facility procedure for food security, defense and protection from allergens; cooperatively purchased equipment; fees for energy use, time in kitchen, length of time for agreement; out clauses, insurance including kitchen liability and product liability. Contracts may also include a trial run before agreement is completed
  - Warehouse licensing may be necessary if food is removed from a licensed kitchen and stored elsewhere
  - It is possible for a producer (or a user group) to hold the necessary license for a facility but then they must only use that particular facility to process. So the facility does not hold the license, just the producer(s).

- Access to kitchen – needs to be included in agreement or contract that is mutually agreed upon by producers and kitchens
  - Does a representative the kitchen need to be there to let the producer/processor in? It will depend on the agreement (level of trust) between the facility and producer/processor
  - Does that representative need to stay each time the facility is used? Only if the activity falls under the facility licensing
  - A lot will depend on how many groups use the facility, is it open to the public on certain days (example of a village meeting facility that does congregate meals during the week but opens the kitchen to receptions… on weekends)

- Equipment/storage – what are your thoughts about touring the kitchen and inventory together (kitchen manager and interested producers) to discuss what is available and what is needed?

  - Good idea, may be one of the first things to do to determine whether the facility is a good match for the producer/processor and his planned product(s)
  - Co-owning co-purchases are possible, cooperative equipment (large canners, flash freezing units, dehydrating units, …)
  - Food security (bioterrorism via food contamination)
  - Ingredient and product security if stored in the facility for some period of time, locked storage, refrigeration, freezing
  - Ingredient and product safety (storage temperatures, humidity conditions, pest control)
  - Warehousing requirements
  - Bringing in own equipment (such as utensils) needs to be addressed in agreements.

- Scheduling – how is this best determined? Should there be a group meeting between interested producers and kitchen representatives to discuss this?
  - Scheduling was not a prime concern for the participants

- The producer should develop a business plan taking into considerations some of the following items from the focus groups.
  - Kitchens do not want to be co-writers of business plans, they do want agreements
  - A level of commitment is necessary for both parties to successfully lease a facility
  - How long should commitments be? Three to four months? A year
  - Agreements should be part of the business plan
  - A business plan template was requested

- Safety training – what are the needs?
  - Kitchen staff is already trained but producer/processors will need training that coincides with the product(s) being processed.
  - Standard operating procedures (SOP)
  - Quality assurance
  - Allergens

- Cleanliness of kitchen following processing was a common concern on the kitchen manager survey and how can this be addressed?
  - Cleaning deposits (leave it the same way you found it) expectations of all parties
  - Cleanliness expectation part of agreements between facility and processor including a checklist for cleaning to be completed
  - Facility providing "cleaning class" before beginning any actual processing
  - Inspection by facility representative at end of each processing session
  - Spot checks
  - Check in - Check out procedures
  - Allergen control for both parties
  - Communication a requirement

- One common opportunity on both surveys was opportunities for the community to purchase locally processed foods
  - All the producers were on board
  - Kitchen staffs are interested

- Other comments
  - Wisconsin Pickle law Hourly rates for use (energy and water use taken into account)
  - FDA may regulate where Iowa Law does not – Labeling requirements

- Use of church kitchens: If they have no sales they most likely will not have a license so the producer will need to have the license for use of a specific kitchen.
- Rental rates for kitchen usage may vary by product and the degree of time to complete the processing. (Energy use and time)
- David Brown is the Bureau Chief for Dairy and should be included in early planning involving processing dairy-based products.
- Include projected average costs for kitchens and producers to implement processing in an existing licensed kitchen.
- Include information on FDA labeling requirements and training resources in general.
- We can include 7 Pines Farm (Dan Beougher) on our list of possible licensed kitchen facilities

Next step is an action plan including funding ideas and a timeline for opening a processing operation at the site by April 12, 2012.

Appendix H Preparing to talk to Department of Inspection and Appeals

Questions for the Kitchen Manager (kitchen has license and is assuming responsibility only for the facility):

- Would storage of ingredients and finished product be offered?
- Is there dedicated equipment for the processing?
- Is there sufficient equipment for the process?
- Are there food security/food defense concerns? (Segregated section that is locked within the refrigeration that the kitchen uses already? Allergen considerations as well depending on product ingredients and equipment to be used by processor that is also routinely used by the kitchen)
- Both parties need to have knowledge of allergens (and how it affects new processing for the producer and for the kitchen).
- Specific products to be processed – not just category (e.g. baked goods), but the specific product(s).
-

Questions for Producer (has license and is assuming liability):

- Product(s) to be processed and whether they are shelf-stable or not
- Where will product be sold (the intended customer)?
- What is the step-by-step process for each product?
  - Note that DIA will visit in person after you apply for a license. DIA will visit with you on the phone, but will not tell you how to process your product.

Questions for Kitchen Manager (if they are assuming liability for the space <u>and</u> for the processing):

The same questions as Producer (above) plus they would need to supervise the processing as it is done.

Questions for Producer (has license and is assuming liability for the processing <u>and</u> for the facility):

- Necessary education for food safety is complete before the inspection. Has the Process Authority letter (if needed for product), the Certificate of completion for Food Safety training, and the label sent ahead before the inspection occurs.

Outline of Licensing Process:

1. Complete license application through DIA or contracting agency (see map for reference).
2. Submit floor plans for review (for new construction, submit floor plans as early as possible to incorporate any necessary changes).
3. Floor plan review outcome is sent in a letter.
4. Producer is notified of assigned inspector.

5. Producer should follow up with the inspector who will come for an on-site visit based on his/her schedule.
6. Inspector will indicate approval during on-site visit and processing may occur immediately following approval.

DIA Contacts based on product area:

Meat and Poultry — Dr. Gary Johnson
515-281-5597
Gary.Johnson@Iowaagriculture.gov

Dairy — David Brown
515-242-5166
David.Brown@Iowaagriculture.gov

All other food products* James Romar
515-577-7849
james.romer@dia.iowa.gov

*(including specialty meat such as bison, buffalo, etc.)

DIA Contact:

Scott Platt
515-669-3953
scott.platt@dia.iowa.gov

Markets*	**Non-hazardous product**	**TCS Product (Temperature Controlled for Food Safety)**
Wholesale	Yes	Yes
Farmer's Markets	No (must demonstrate that product is non-hazardous)	Yes
Retail	Yes (or No if commercially-stable and non-refrigerated	Yes
CSAs and Co-ops	Yes	Yes
Direct to Consumer	No	Yes

Table. 1. Licensing Needs.*If a producer wants to sell to more than one market, he/she needs to determine the most predominant market which will then determine the license requirement.

Working with more than one department at DIA:

A producer may need to work with more than one department at DIA if the product is manufactured under one area, and the markets dictate another area. For example, dairy products are processed under David Brown, however, if the dairy product is being sold at the Farmer's Market, the retail license to sell will come through James Romar. If the dairy product is processed and sold from the same facility, the producer will only need to work with David Brown.

Appendix I Sample Agreement Templates and Policies

Rental Agreement Template -1

This_____(kitchen name) Rental, Reservation, and Release are made this_____day of_____, 20____by the undersigned, herein referred to as "RENTER".

Renter's Name(s):_____

Contact Number: ( )_____Email

Address: _____

Alternate Contact Number: ( )_____

Renter's Address:_____City:_____State:_____Zip:_____Have you purchased business liability insurance? Yes/No, if yes, attach current Certificate of Insurance.

Have you purchased product liability insurance? Yes/No, if yes, attach current Certificate of Insurance.

List and attach a copy of the current license(s) you hold for the products you are processing at this kitchen:

_____

_____

Rental Date(s):_____Hours:_____am/pm to_____am/pm

Key card #_____issued to:_____

_____ Rental rate for kitchen space: _____for equipment:_____for storage: _____

Total rental rate (per hour or per half/full day) = _____

Deposit amount:_____Paid by: ___

Area to be rented (including any refrigeration/freezing):

_____

_____

Equipment to be used:

_____

_____

Other pertinent information:

This section might include any of the following that is applicable to your kitchen:

- Rent payment policy (when due, how to pay, late charges, etc.)
- Utilities included in rental rate (if any are)

- Length of rental agreement, e.g. one-time rent, on-going on a weekly/monthly basis, etc.

- Policy on written notice for terminating rental agreement such as 30 days.
- Cancellation fee.
- Outline responsibilities of tenant and responsibilities of kitchen as it relates to the space.
- Checking in and checking out procedure.
- Cleanliness Policy and outline of what needs to be done by tenant and by kitchen.
- Additional trash pick-ups following processing will be addressed if needed.
- Kitchen rules and regulations as appropriate.

Indemnification and Hold Harmless

By signing below, the Renter agrees to defend, indemnify and hold harmless the Kitchen, its officers, officials, employees and volunteers from and against any and all claims, suits, actions, or liabilities for injury or death of any person, or for loss or damage to property, which arises out of the use of the facility or from which any activity, work or thing done, permitted, or suffered by the renter in or about the facility, except only such injury or damage as shall have been occasioned by the sole negligence of the kitchen.

Renter signature_____Date: _____

Kitchen manager signature_____Date:_____

Rental Agreement Template 2

The landlord and renter agree that:

1. The landlord agrees to allow tenant use of the kitchen located at and described as: _____Kitchen name, address. The term of this agreement shall be from_____time on _____date until_____time on_____date.

2. Renter and landlord agree to reevaluate the rental agreement on a semiannual basis to be scheduled for_____month and_____month. Any amendments can be made during reevaluation.

3. Renter will give 30 days written notice before the end of the agreement period of intent to renew agreement for said premises or vacate upon termination of the agreement.

4. The renter shall pay landlord either:

   A. An hourly rate of $_____per hour per cooking station with a minimum fee of $_____(___hours). A cooking station includes_. An additional charge of $___per hour will apply when scheduling more than one cooking station.
   B. A flat rate fee of $_____per month for one cooking station (for up to 18 hours per month – extra time is $___/hour up to_____extra hours) as rent for the term stated on the first day of each month OR
   C. A flat rate fee of $_____per month for one cooking station (for up to 32 hours per month – extra time is $___/hour up to_____extra hours) as rent for the term stated on the first day of each month.
   D. Rents are delivered or mailed to_____address. All payments are made payable to_____. Any rent not received by landlord on or before the first shall be delinquent and a late charge of 10% of the gross monthly rent if received after 9:00am on the 2nd calendar day of the month, or postmarked after the first calendar day of the month. A charge of $_____may be applied to cover costs of handling a returned check.

5. Renter and landlord agree that the following utilities are included in the monthly or hourly rate:

   _____Electricity

   ____Natural gas

   ____Water/Sewer

   ____Trash removal

6. Renter and landlord agree that the following basic kitchen supplies will be provided as part of the monthly or hourly rate:
   ____Paper towels
   ____Toilet paper
   ____Bleach/Sanitizer
   ____Dish soap
   ____Hand soap

____Surface cleaners
____Mop
____Mop bucket
____Broom
____Dust pan
____Ice melt (when applicable)

7. Renter and landlord agree that use of the following equipment, and the applicable usage tax is included in the monthly or hourly rate:
   ____Walk-in refrigerator (number of shelf/shelves____)
   ____Freezer (number of shelf/shelves_____)
   ____Mixer
   ____Other:

8. Renter and landlord agree that a dry storage area of approximately_____size will be included in the monthly rate for all tenants paying at least $_____per month.

9. Renter and landlord will refer to the Reserved Kitchen Time form to establish a kitchen use schedule. Reserved Kitchen Time is allocated based on seniority. Reserved Kitchen Time will be evaluated quarterly. In order to keep a specific time reserved, the tenant must show consistent usage of that time.
10. Renter agrees to sign in and sign out for the Kitchen Usage Log each time kitchen access is gained.

11. Renter is responsible for maintining his/her License(s) applicable to his/her business, products and markets.

12. Renter must provide to landlord a current copy of his/her business insurance naming_____kitchen as named insured on the policy.

13. The renter shall:
    - Maintain the cleanliness of the kitchen as outlined in the cleanliness policy/list.
    - Make no alterations, installations, or repairs of any kind to the premises without first obtaining written permission from the landlord.
    - Pay for any damage to the leased premises caused by an act of the tenant or any of the tenant's employee(s).
    - Be responsible for liability, theft, and accident pertaining to the kitchen usage, unless caused by landlord's negligence.
    - Abide by governmental laws and regulations regarding care and occupancy of the premises.
    - Give prompt notice to landlord or management of any maintenance required.

14. The landlord shall be responsible for the following maintenance duties during the term of this agreement except to the extent that any such item is made necessary by the acts of the renter, and/or renter's employee(s):
    - Repairs to the interior of the premises including the named equipment.
    - Coordination of kitchen schedule, and general kitchen operations.

15. If the building is destroyed and made untenable by fire or other causes, the landlord or renter shall have the right to terminate the lease, and landlord shall return the unused portion of any pre-paid rent. Nothing herein shall be construed so as to compel the landlord to rebuild the premises in case of destruction.

16. All notices to quit shall be issued in strict adherence to Iowa law.

17. In consideration of receiving approval to use_____kitchen, the undersigned hereby releases owner, kitchen manager, and any related or affiliated company, their respective officers, directors, agents, and employees (the "releases") of and from any and all liability, claims, demands, actions and causes of action whatsoever, including actions based on negligent conduct of the "releases" arising out of or related to any loss, damage or injury, including death, that may be sustained by the undersigned, or any of his or her helpers while in_____kitchen

18. In the event of any legal action concerning this lease, the losing party shall pay to the prevailing party reasonable attorney's fees and court costs to be fixed by the court wherein such judgments shall be entered.

19. The renter and landlord agree that this Rental Agreement contains the entire understanding between them and that there are no oral or written promises, inducements, representations, warranties, covenants, undertakings or agreements whatsoever between them, except as contained herein. This Rental Agreement cancels, annuls, and invalidates any and all prior agreements between renter and landlord, whether verbal or written, regarding the rental of the_____kitchen.

In Witness Whereof the parties have duly executed this Kitchen Rental Agreement this
_____day of_____, _____

_____(Renter)

Signed : _____

_____(Kitchen)

Signed : _____

Sample Rental and Reservation Policy

Making a reservation:

1. No reservations will be taken by telephone.
2. A $_____deposit is required at the time the reservation is made.
3. Full payment of rented hours is due within 30 days of rental date(s).
4. Applicants must be at least 18 years of age. Proof may be required.

General information:

1. The rental time period must run consecutively and the minimum amount of time to rent is_____. Prep work and cleanup shall be completed during the hours rented. No early admittance or next day cleanup will be allowed. Refunds will not be given for hours reserved and not used.
2. Renter(s) is responsible for their own clean-up unless prior arrangements are made to hire facility Maintenance Staff. The additional fee for the facility staff is $_____.
3. Areas that are not included in your rental agreement and that are not to be accessed include _____.
4. Renter must be present during the entire time of each rental period.
5. _____(kitchen) staff assumes no responsibility for the renter's property prior to, during, or following rental period.
6. Renter shall be responsible for informing any employees/helpers of all kitchen policies.

Appendix J Business Plan Resources

National Sustainable Agriculture Information Service:
http://www.ngfn.org/resources/ngfn-database/knowledge/agriculture_planning.pdf

Leopold Center for Sustainable Agriculture Marketing Resources and Farmer Profitability:
http://www.leopold.iastate.edu/marketing/resources

Conflict Resolution Resource
Dale Carnegie Free Booklet:
http://www.dalecarnegie.com/conflict-resolution/

Appendix K Rental Rates, Fees and Deposits

Sample Rental Rates, Fees and Deposits

	Rate	Type
Texas	$25/hr, 1-4 hours $7/hr, 40+hours	kitchen access and all storage (sliding fee)
Washington	$25/hr	cook line kitchen + classroom
	$15/hr	cook line kitchen
	$10 to $15/hr	tilt kettle processing
	$10 to $15/hr	preparation area
	$5/hr	dry storage (2 linear feet)
	$10/day	dry storage (2 linear feet)
	$50/month	dry storage (2 linear feet)
	$10/hr	cooler (3' shelf)
	$25/day	cooler (3' shelf)
	$75/month	cooler (3' shelf)
	$15/hr	1/2 cooktop plus 1 oven
	$200/month	1/2 cooktop, 1 oven, freezer storage, cooler, dry storage up to 18 hours
	$350/month	1/2 cooktop, 1 oven, freezer storage, cooler, dry storage up to 32 hours
	$100-$250	deposit
Iowa	$40-$100/day	kitchen access plus dining area
	$20 - $100	deposit
Chicago IL	$14-$25/hour	kitchen access peak hours*
	$30 - $ 60 based on size	storage, rolling locker
	$10 flat fee	storage, dry
	$30 - $ 60 based on size	cooler
	$35 - $ 50 based on size	freezer
Illinois	$14 - $23/hr	kitchen access
	$40/month	storage rolling locker
	$5/month	dry storage (2 linear feet)
	$20/month	cooler Refrigerator door width
	$25/month	Freezer shelf (single door width)
Boston MA	$300/month	minimum monthly charge (10 hours use)
	$30/hr	kitchen access and all storage
	$300	security deposit

*Peak hours are Monday-Friday 6am-10pm and weekends 6am-6pm.

Appendix L Food and Drug Administration Food Labeling Resources

FDA Home Page:
http://www.fda.gov

Food Labeling:
http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodLabelingNutrition/FoodLabelingGuide/default.htm

Appendix M Additional Resources

Potential Existing Licensed Kitchens for Light Processing :

Horizons, 819 5th St. SE, Cedar Rapids, Iowa 52401, Contact Dianna Young – 319-398-3574

Heartland Senior Center, 205 S. Walnut, Ames, Iowa 50010, Contact Mary Ellen Metzger – 515-233-2906,

7 Pines Farm, Maxwell, Iowa, Contact Dan Beougher – 515-710-4431

Links to Additional Information:

Iowa Department of Inspections and Appeals, Food and Consumer Safety Bureau - **http://dia.iowa.gov/page3.html**

Code of Federal Regulations, 21CFR Food and Drugs - **http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR**

Iowa Food Code - **http://dia.iowa.gov/page28.html**

Training Opportunities:

GAP's and On-Farm Food Safety Workshop, Iowa State University Extension and Outreach, **www.iowafoodsafety.org**

On-Farm Risk Based Food Safety Plan Workshop, Iowa State University Extension and Outreach, **www.iowafoodsafety.org**

Recipe to Reality, The Food Processing Center, University of Nebraska, Lincoln, NE, **fpc@unl.edu**

ServSafe® Training Events, **www.iowafoodsafety.org**

Appendix N Action Steps to Open Processing Services.

Heartland Senior Center in Ames, Iowa

1. Obtain approval from Board of Directors for offering processing at the Heartland Senior Center.
2. Potential products have been decided and include baked goods, chopping and cleaning fresh vegetables and fruit, canning (if the canning equipment is brought in by the producer), and use of the freezer for short term (such as overnight or over the weekend) as temporary storage. The Food Service Manager (FSM) is also open to a cooperative effort for a large dehydrator that could be brought in and used on site.
3. The recipe will be reviewed to be sure that all equipment is available. Ingredients will need to be brought in by each producer and removed after processing is finished.
4. Department of Inspections and Appeals (DIA) visits to review recipe and step-by-step process for each product to be sure food safety needs are met as well as licensure based on products, markets, and storage.
5. FSM discusses insurance coverage with facility Finance Department based on kitchen processing and possible storage.
6. Rental Agreement is written (based on available template) between kitchen and producer and reviewed by Heartland attorney.
7. FSM or Head Cook coordinates with custodial workers to be sure that the kitchen will be clean when the producer arrives to work in it. An additional trash pickup is also arranged if needed.
8. FSM prepares a promotional piece for processing at their kitchen.

The FSM shared that the Board of Directors meet monthly and that the proposal would be presented one month and voted on at the following monthly meeting.
Following Board approval, the FSM estimates the actions steps to take 4.5 hours.

Cost to Heartland Senior Center kitchen to complete action steps: 4.5 hours X $25/hour = $112.50

Horizons in Cedar Rapids

1. Gain Board of Director approval to proceed with offering processing services at Horizons kitchen.
2. Food Service Director decides on products that will be accepted for processing.
3. Producer meets with Food Service Director (FSD) or Kitchen Manager and provides the recipe and/or the necessary equipment list for each product to process.
4. Inspections and appeals (DIA) visits to check on kitchen and producer license(s), the step-by-step processing plan each product, identify safety training needs, and any additional licensing requirements based on where the products will be sold and stored.
5. The FSD confirms with Financial Department that insurance coverage is appropriate.
6. The Kitchen Manager and the producer complete the rental agreement using the provided template.
7. Horizons attorney reviews and approves agreement.
8. FSD develop a promotional piece (such as a brochure) regarding processing service, days and times when kitchen is available to rent, and contact information.

The total time to complete these action steps is projected to be 4.0 hours. (This does not include the insurance review and the agreement review which will be completed by facility staff. The cost will be considered part of the overhead cost for Horizons.)

Cost to Horizons kitchen to complete action steps: 4.0 hours X $17.30 per hour = $69.20 (based on kitchen manager wage level)

The Board of Director meets once per month. When board approval is obtained to move forward, the remaining steps can be accomplished with one week.

Appendix O — General Action Steps for Kitchen Managers to Offer Processing in Existing Licensed Senior Center Kitchens

1. Secure approval from Board of Directors for kitchen (or other administrative officer or business owner) to develop a shared-use processing business.
2. Meet with Department of Inspections and Appeals to tour the kitchen and learn what products might be processed and licenses required.
3. Based on equipment available and licensing, decide on products that will be accepted for processing as well as if refrigeration, freezer space, and dry storage will be available.
4. Check with insurance agent about insurance needs with processing and product storage (if applicable).
5. Develop a rental agreement for use between the kitchen and the producer and have your lawyer review.
6. Determine days and hours that kitchen will be available for processing. Scheduling is a function of the kitchen and will need to be assigned to a specified staff person.
7. Develop a promotional piece for your shared-use processing kitchen and market your new business.
8. Receive proposed recipe and equipment needs from interested producers and make decision if acceptable for the kitchen facility.
9. Department of Inspections and Appeals reviews recipes and food safety procedures to be followed during processing at the kitchen.
10. Implement processing on a limited basis at first and expand as appropriate.
11. Consider offering producer training at your facility including GAP, business planning and marketing.

Project Title
Expending Iowa's Fruit and Vegetable Industry Through Grower Education

Project Summary
The Iowa Fruit and Vegetable Growers Association Conference was held January 27-28, 2012, at the Iowa FFA Enrichment Center, Ankeny, Iowa. The conference featured sessions aimed at beginning fruit and vegetable growers. The conference focused on business and production aspects new farmers needed to understand and employ to be successful. During concurrent sessions, topics were offered on direct farm marketing techniques that would benefit new and experienced fruit and vegetable growers.

Project Approach
The Iowa Fruit and Vegetable Growers Association planned and conducted a conference with a special track for beginner/transitional growers. The conference included additional tracks focused on fruit production, vegetable production and direct marketing.

The conference also offered two sessions of one-hour roundtable discussions. The topics included agritourism, food safety/GAPs, high tunnels, interpreting soil fertility, managing multiple markets, nutrient management in commercial fruits and vegetables, organics, pawpaw production, pumpkins, sweet corn and thinning apples with lime sulfur.

Concurrent sessions included high tunnel production, rainwater catchment system for high tunnels, day neutral strawberries in Iowa, new approaches to apple production, cover crops, fruit and vegetable crop insurance, pollination, fall lettuce production, donating excess produce to local food banks, food safety, applying for on-farm research, and timely updates on two pests, the spotted wing drosophila, and the brown marmorated stink bug, General and concurrent sessions were presented on agritourism. Concurrent sessions included Web site marketing, social media and considerations for starting a roadside market.

A trade show was held in conjunction with the conference and included product vendors and service providers. The trade show provided growers with an opportunity to learn more about equipment, crop protection products, seed varieties and transplants, fertilizers and nutrients, and farm insurance.

A news release was issued to media outlets and the conference date was listed on educational calendars. A paid newspaper advertisement announcing the conference appeared in the January 18, 2012, issue of the *Iowa Farm Bureau Spokesman*.

New additions to this annual conference were poster presentations. Eight students from Iowa State University representing 10 research projects were on hand to answer grower questions about recent research.

Goals and Outcomes Achieved
During the planning stages the IFVGA believed that growers motivated enough to participate in the educational conference would have the opportunity for a 15 to 25 percent increase in awareness of business and production issues. A conference goal was to inform an estimated 30 to

50 beginning/transitional farmers about business and production issues important to the long-term success of their businesses.

The 2012 conference was attended by approximately 150 growers. The registration information did not categorize attendees as beginners and experienced growers.

Attendees were asked to evaluate each concurrent session they attended by responding to three statement outlines:
Indicate on the scale below your knowledge level in this area before the session. Attendees could answer (1) no knowledge, novice, knowledgeable and (5) expert ranging from a scale of one to five. *Indicate on the scale below the impact of the session on your knowledge base*. Attendees could answer (1) no benefit, improved slightly to (5) greatly improved on a scale of one to five. *Indicate on the scale below how likely you are to utilize the information you gained in your own business*. Attendees could answer (1) not likely to use, likely to use to (5) definitely will use on a scale of one to five.

There were 140 completed evaluation forms collected from the concurrent sessions. There were 59 respondents or 42 percent indicating they were beginning/transitional producers. There were 54 respondents or 38 percent indicating they were experienced producers. The remaining attendees indicated their status as being student, industry representative, educator and other.

Fifty seven percent of the attendees responded they had (1) no knowledge or were (2) novice in the material presented before the sessions were conducted. Another 30 percent of respondents said they were (3) knowledgeable in the topics before the sessions were presented. Following the sessions, 74 percent of the attendees responded they had (4) improved or (5) greatly improved knowledge base of the session material. Another 25 percent of respondents indicated their knowledge base of the material presented was (3) improved slightly.

As for the practicality of the information, 32 percent of attendees indicated they were (3) likely to use the information in their business while a combined 59 percent of respondents indicated an evaluation rating of (4) and (5) as "definitely will use" the information in their business.

Overall, the value of the concurrent sessions were rated as (3) valuable by 27 percent of respondents, (4) very valuable by 35 percent of respondents and (5) extremely valuable by 32 percent of respondents for a total of 94 percent.

The number of evaluations collected following concurrent sessions varied. Some session moderators were more persuasive in obtaining completed evaluations compared to others.

The grant made it possible for each farm attending the conference to take home one reference publication distributed through Iowa State University Plant Pathology. Each farm was given the opportunity to select one publication from three offerings: the Midwest Small Fruit & Grape Spray Guide, the Midwest Tree Fruit Spray Guide and the Midwest Vegetable Production Guide for Commercial Growers.

A follow-up online evaluation was not conducted. Educational presentations from the 2012 conference have not yet been added to the association Web site because it was scheduled for a redesign.

Beneficiaries

Members of the Iowa Fruit and Vegetable Growers Association and people attending the annual conference for the first time benefited from the information presented and access to industry vendors and fellow growers. The college students benefitted from interacting with fruit and vegetable growers. University presenters benefited from the opportunity to visit with Iowa growers about current issues and needs affecting their production practices.

Lessons Learned

- The association discovered that simple roundtable discussions proved quite popular and highly rated by all attendees. Growers indicated they wanted the roundtable discussions to be spread out in multiple rooms rather than in one large conference room.
- In the future, the association intends on tracking beginning/transitional growers on registration forms along with their county locations.
- There continues to be a need for beginner information, based on the evaluations.
- Evaluations on the overall conference captured valuable information on topics attendees desired at future conferences and topics desired for future university research.
- Based on emails and phone calls received by IFVGA prior to the 2012 conference, there continues to be a need for delivering how to grow beginner fruit and vegetable information to Iowans.
- The annual conference continues to be the preferred method for delivering information and research to Iowa fruit and vegetable growers.

Contact Person

Malinda Geisler
Growing Family Fun at Geisler Farms
5251 NE 94th Ave.
Bondurant, IA 50035
515-964-2640
Fax 515-964-8704
malindag@hughes.net

IOWA STATE UNIVERSITY
Extension and Outreach
Healthy People. Environments. Economies.

Conference to Cover Production and Marketing of Fruits and Vegetables

ARTICLE | WED, 01/11/2012 - 16:00 | BY CHRISTA HARTSOOK, WILLY KLEIN

AMES, Iowa – The Iowa Fruit and Vegetable Growers Annual Conference will be held Jan. 27-28 at the FFA Enrichment Center in Ankeny. Producers interested in marketing and production of local fruits and vegetables are invited to attend.

The conference will offer sessions on direct marketing, production issues, food safety and emerging trends. Roundtables on a variety of topics including agritourism, soil fertility, sweet corn, pumpkins, managing multiple markets and organics also are on the conference agenda. Trade show exhibits will feature equipment, seed dealers, state services and more.

Conference fees are $70 per day. An additional $50 dues fee is required for all non-members of the association. Registration information is available online at www.findafarmiowa.org.

Iowa State University Extension Value Added Agriculture is a sponsor of the conference. More information on value-added agriculture can be found at www.iavaap.org.

-30-

About the Authors

Christa Hartsook
Communications Specialist, Value Added Agriculture Program
515-294-4430
hartc@iastate.edu

Willy Klein
ISU Extension and Outreach
515-294-0662
wklein@iastate.edu

Comments

Post new comment

Your name:

Anonymous

E-mail:

The content of this field is kept private and will not be shown publicly.

Homepage:

Comment: *

Iowa Fruit & Vegetable Growers & Marketers Conference

January 27-28, 2012
FFA Enrichment Center
Ankeny, Iowa

Conference Location

FFA Enrichment Center
adjoining the DMACC Ankeny Campus
1055 SW Prairie Trail Parkway
Ankeny, Iowa 50023

From Interstate 35 (I-35)
Take I-35 either North or South to Ankeny.
Take the Oralabor Road exit & go west
If you are coming from the north, this is a right turn
If you are coming from the south, this is a left turn.
After driving about 2 miles, you will run into South Ankeny Blvd.
Turn right onto South Ankeny Blvd.
Turn left on DMACC Blvd.
Turn right on SW Campus Court

From Interstate 80 (I-80) in Des Moines
Take the 2nd Avenue exit north (Highway 415).
Drive to Oralabor Road in Ankeny.
Turn right on Oralabor Road.
Turn left at the first stoplight—DMACC Blvd.
Turn left on SW Campus Court

Hotel Information

Lodging is available at the Fairfield Inn & Suites by Marriott for $80 per night (plus tax) through January 14

After January 14, availability is not guaranteed at conference rate.

The room rate includes a continental breakfast.
215 NE Delaware Ave., Ankeny, IA 50021
Phone: 515-965-8400

Directions: Travel to Exit 92 on I-35. Turn west towards town. At the intersection of Delaware Ave. and First Street, turn right (north). Travel one block and turn right.

Registration Fees (Includes lunch - catered by Hickory Park - and breaks.)

	Early Bird (by Jan. 9)	After Jan. 10 (or on-site)			
IFVGA Members	$55/day	$70/day	Friday Quantity ____	Saturday Quantity ____	Total Due $ ____
(additional family members)	$35/day	$50/day	Friday Quantity ____	Saturday Quantity ____	Total Due $ ____
Non-members	$55/day +$50 dues	$70/day +$50 dues	Friday Quantity ____	Saturday Quantity ____	Total Due $ ____
(additional family members)	$50/day	$65/day	Friday Quantity ____	Saturday Quantity ____	Total Due $ ____
Students (high school or college)	$20/day	$25/day	Friday Quantity ____	Saturday Quantity ____	Total Due $ ____

*The nonmember fee includes a one-year membership to IFVGA collected on the first day of the conference.

Please make checks payable to IFVGA and send to 1111 NSRIC, Ames, IA 50011.

Total Fees Due $ _____

Conference Agenda

Friday, January 28

7:30 am **Registration**

8:30 am **General Session**

9:30 am **2011 Recap - Annual Mtg. & Reports**

10:00 am **Break - Trade Show**

10:30 am **General Session**
Growing Produce & Agritourism

11:30 am **Roundtables** (over 10 topics will be offered)
- Selecting seed suppliers & varieties
- High tunnel 101
- Thinning apples with lime sulfur
- Growing strawberries
- Nutrient management in fruits & vegetables
- Pawpaw production in Iowa

12:30 am **Trade Show and Lunch**

1:30 pm **Concurrent Sessions**
- High tunnel 101
- Agritourism
- Tunnel & field production systems for strawberries
- New approaches & practices to apple prod.

2:15 pm **Concurrent Sessions**
- Determining the best high value crops for your operation
- Does agritourism fit your production model?
- Pollination in fruit & vegetable production
- Cover crop options for fruit & vegetables

3:00 pm **Break - Trade Show**

3:30 pm **Repeat Roundtables**

4:30 pm **Auction**

5:30 pm **Dinner on Your Own**

Saturday, January 29

7:30 am **Registration**

8:30 am **General Session**
Growing the Giants

9:15 am **Announcements**

9:30 am **General Session**
What Chefs are Looking For

10:30 am **Break - Trade Show**

11:00 am **Concurrent Sessions**
- Utilizing Food Banks for Excess Produce
- Using the Web to Enhance Marketing
- Fall Lettuce Trial & Vegetable Research

12:00 pm **Lunch and Trade Show**

1:00 pm **General Session**
Adding Value Through Diversification

2:00 pm **Concurrent Sessions**
- Food Safety and How it Will Impact your Operation
- Considerations for Starting a Roadside Market
- SARE - How to Apply for On-farm Research Grants
- Spotted Wing Drosophila Update

2:45 pm **Concurrent Sessions**
- Insuring your Fruit & Vegetable Operation
- Using Social Media to Enhance Marketing
- High Tunnel Rainwater Catch Systems
- Brown Marmorated Stink Bug

3:30 pm **Final Comments/Door Prizes**

4:00 pm **Adjourn**

This conference is supported in part by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship. Additional sponsors include the Iowa Fruit and Vegetable Growers Association and Iowa State University Value Added Agriculture Program.

Nourse Farms is sponsoring breaks both days and Harris Seeds is co-sponsoring lunch both days.

Registration Form

Name _____

Business Name/Organization _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

Please check if a vegetarian meal is needed. _____

Please make checks payable to IFVGA and send to 1111 NSRIC, Ames, IA 50011. We are unable to process credit/debit card payments.

Iowa Fruit & Vegetable Growers Conference

January 27-28, 2012

FFA Enrichment Center / Ankeny, Iowa

Friday, January 27

7:30 am	**Registration**
8:30 am	**General Session – Agritourism** **Conference Room A** *Vern Stade, McHenry, Illinois* *Board Member Moderator: Fred Howell*
9:30 am	**IFVGA Annual Meeting & Reports** **Conference Room A** *Secretary's Report, Treasurer's Report, Fair Report, ISU Horticulture Report, Silent Auction Information, Officer Elections, Additional Announcements/Instructions* *Board Member Moderator: Darrell Geisler*
10:00 am	**Coffee break in exhibit area**
10:30 am	**General Session – Vendor Introductions** **Conference Room A** *Board Member Moderator: Mike Penick* *Roundtable Instructions*
11:30 am	**Roundtables** **Conference Room B** ● *Agritourism – Kathy Hohl, IFVGA Board* ● *Food Safety/GAPs – Marsha Laux, ISU Extension Value Added Agriculture* ● *High Tunnels – Linda Naeve, ISU Extension Value Added Agriculture* ● *Interpreting Soil Fertility – Joe Hannan, ISU Extension* ● *Managing Multiple Markets – Scott Wilber, IFVGA Board* ● *Nutrient Management in Commercial Fruits and Vegetables – Dr. Ajay Nair, ISU Horticulture* ● *Organics – Maury Wills, IFVGA Board, IDALS* ● *Pawpaw Production in Iowa – Patrick O'Malley, ISU Horticulture* ● *Pumpkins – Darrell Geisler, IFVGA Board* ● *Sweet Corn – Mike Penick, IFVGA Board* ● *Thinning Apples with Lime Sulfur – Dr. Paul Domoto, ISU Horticulture*
12:30 pm	**Lunch and Trade Show** **Conference Room B and Conference Lobby**

COWPOKES ® By Ace Reid

"To think, all this ranch is mine, acres of land, no grass, five miles of creek, and no water!"

p.m., Northwest Community College, Sheldon. Call 712-957-5045 for more information.

SAC

Feb. 8 — Commercial Ag Weed, Insect and Plant Disease Management CIC. $35 on or before Feb. 1 and $45 after that. 712-662-7131.

SHELBY

Jan. 24 — Private pesticide applicator training, 9:30 a.m., Therkildsen Activity Center, Harlan.

Jan. 31 — Confinement site manure applicator certification, 1:30 p.m., Extension office.

Jan. 31 — Private pesticide applicator training, 7 p.m., Therkildsen Activity Center, Harlan.

Feb. 8 — Commercial ag continuing education, 9 a.m., Extension office.

SIOUX

Jan. 23 — Confinement site manure applicator training, 9:30 a.m. and 1:30 p.m., Extension office, Orange City Area Health System Downtown Campus (use the east entrance.) 712-737-4230.

UNION

Feb. 2 — Meeting for public comment on USDA's proposed office consolidation plan, 1 p.m., Instructional Center Room 220, Southwest Community College campus, Creston. The Appanoose, Decatur and Union County FSA offices are being considered for consolidation.

WASHINGTON

Feb. 16 — Confinement site manure applicator certification, 7-9 p.m., Extension office.

COUNTY NEWS

If news from your county is not listed in Iowa Farmer Today's "Iowa Reports" page, contact your county Extension office or commodity groups. Ask them to send news items, especially upcoming meetings, to reports@iowafarmertoday.com.

CALENDAR

Saturday, Jan. 21

■ Cornbelt Cow-Calf Conference (CCCC), Bridge View Center, Ottumwa. 8 a.m. $15 includes lunch. www.iowabeefcenter.org/events/2012CCCC.pdf.

■ Local food producer networking meetings: 9 a.m., Cedar Valley Produce Auction; and 1 p.m., Zastrow River Room, Charles City Public Library. No fee, no registration required.

Monday, Jan. 23

■ Crop Advantage Series meeting, Le Mars Convention Center, 251 12th St. SE, Le Mars. Registration 9:30 a.m. Meeting, 10 a.m.-4:30 p.m. $45. www.cropadvantage.org.

Tuesday, Jan. 24

■ Crop Advantage Series meeting, Carrollton Inn, 1730 Highway 71 N., Carroll. Registratin 8:30 a.m. Meeting, 9 a.m.-4:15 p.m. $45. www.cropadvantage.org.

■ Practical Farmers of Iowa Winter Farminar "Insect Pest Management in Organic Vegetable Production," 7-8:30 p.m. www.practicalfarmers.org/farminar.

■ Risk and Margin Management workshop for cattle feeders, 9:45 a.m.-3 p.m., Pinicon Restaurant, New Hampton. Contact a county Extension office, 641-923-2856, reuken@iastate.edu or 860-641-1177 to reserve a spot and meal. Free.

Wednesday, Jan. 25

■ Iowa Pork Congress, Jan. 25-26, State Fairgrounds, Des Moines. www.iowaporkcongress.org.

■ Iowa Beef Center Heifer Development Series, 10 a.m-2 p.m, Rockwell City (snow date Feb. 1). www.iowabeefcenter.org or call 515-294-BEEF (2333).

■ Crop Advantage Series meeting, Hawkeye Community College, Tama Hall, 1501 East Orange Rd., Waterloo. Registration 8:15 a.m. Meeting, 8:45 a.m.-4:30 p.m. $45. www.cropadvantage.org.

■ Crop Fair with Iowa Corn Growers Association and Iowa Corn Promotion Board, Fayette. www.iowacorn.org or call 515-225-9242.

■ Local Food Producer Networking meeting, 7 p.m., Ventura Public Library. Free, no registration required.

Thursday, Jan. 26

■ Iowa Beef Center Heifer Development Series, 6 p.m., Ellsworth College Equestrian Center, Iowa Falls. www.iowabeefcenter.org or call 515-294-BEEF (2333).

Friday, Jan. 27

■ Farm succession planning two-day workshop, Jan. 27-28, Heritage Event Center, Cresco. $150 for a four-person operation. 563-547-3001 or visit www.extension.iastate.edu/howard.

■ Iowa Fruit and Vegetable Growers Annual Conference, Jan. 27-28, FFA Enrichment Center, Ankeny. $70 per day. An additional $50 dues fee required for non-members of the association. www.findafarmiowa.org.

Saturday, Jan. 28

■ North Central Iowa Youth Beef Conference, 9 a.m. registration, 9:30 a.m.-2:30 p.m., Ellsworth Community College Ag & Renewable Energy Center, Iowa Falls. Please pre-register at a county Extension office.

■ "Beef and Basketball" event, Ames. RSVP with a Pfizer representative, the Iowa Beef Center, 641-203-1270 or 515-294-1058. The program brochure is available at www.iowabeefcenter. org.

Free Publication

Redeem this flyer at the Iowa State University Plant Pathology Booth for your choice of one free educational publication. Limit one free publication per farm.

Please mark 1 selection

☐ **Midwest Small Fruit & Grape Spray Guide**

This guide provides information on pest and disease control for the following crops: grape, blueberry, raspberry, blackberry and strawberry.

☐ **Midwest Tree Fruit Spray Guide**

This guide offers spray recommendations for apple, pear, cherry, peach and plum trees.

☐ **Midwest Vegetable Production Guide for Commercial Growers**

This guide provides information on disease, weed and insect management for the production of major vegetable crops.

Funding for this free publication was provided by the IDALS Specialty Crop Block Grant. 2012 IFVGA Conference.

SERVING IOWA FARMERS SINCE 1934

PEOPLE. PROGRESS. PRIDE.
IOWA FARM BUREAU

Spokesman

JANUARY 18, 2012 | VOL. 78, NO. 19 | WWW.IOWAFARMBUREAU.COM

credit programs in a recent report to the USDA, and that's an area that will receive a lot of attention from the department. "We really have to address these issues, and we have to look to all programs to send a message to young people that we really want to help them."

The entire nation should be grateful to Iowa for the state's push to embrace ethanol and the bio-based economy, Vilsack said. "Iowa has produce enough to supply food, feed and exports markets, Vilsack said.

"And we can't stop there. We've got to look for more ways to do more, and there is exciting research beyond the fuel business in polymers, chemicals where crops and livestock waste can be used," Vilsack said. "This is what will get the American economy going again; it gets us back into to push for a repeal of the RFS, it's clear that the increased use of biofuels continues to create jobs, improve energy security and aid the environment, he said.

Vilsack also pledged to help other federal agencies understand agriculture and the consequences to farmers before issuing regulations. "I'm telling them that they just can't roll stuff out without talking with farmers."

Vilsack said he recently contacted U.S. Labor Secretary Hilda Solis to discuss the DOL's proposed youth labor proposal, which would drastically limit the type of work that young people could do on farms and the type of farms they could work on.

"I tried to press on the DOL that this is not just about labor, but that there is a value system here about the way that rural people teach their kids about hard work," Vilsack said. "That's an important value to impart, and we've got to make sure that whatever we do doesn't interfere with that."

1:30 pm **Concurrent Sessions**

- *High Tunnel Production – Mike Bollinger, Root River Farm, Decorah*
  Conference Room D
  Board Member Moderator: Scott Wilber

- *New Approaches & Practices to Apple Production – Dr. Paul Domoto, ISU Horticulture*
  Conference Room E
  Board Member Moderator: Maury Wills

- *Tunnel & Field Production Systems for Day Neutral Strawberries in Iowa – Dennis Portz*
  Conference Room F
  Board Member Moderator: Eric Franzenberg

2:15 pm **Concurrent Sessions**

- *Agritourism – Vern Stade, McHenry, Illinois*
  Conference Room D
  Board Member Moderator: Darrell Geisler

- *Cover Crop Options for Fruit and Vegetable Production – Dr. Ajay Nair, ISU Horticulture*
  Conference Room E
  Board Member Moderator: Eric Franzenberg

- *Pollination in Fruit and Vegetable Production – Amy Alesch, ISU Horticulture*
  Conference Room F
  Board Member Moderator: Maury Wills

- *Update on the Iowa Farm and Food Plan – Craig Chase, Leopold Center for Agriculture*
  Conference Room G
  Board Member Moderator: Mike Penick

3:00 pm **Break in exhibit area**

3:30 pm **Roundtables (repeat from 1:30)**
Conference Room B

- *Agritourism – Kathy Hohl, IFVGA Board*
- *Food Safety/GAPs – Marsha Laux, ISU Extension Value Added Agriculture*
- *High Tunnels – Linda Naeve, ISU Extension Value Added Agriculture*
- *Interpreting Soil Fertility – Joe Hannan, ISU Extension*
- *Managing Multiple Markets – Scott Wilber, IFVGA Board*
- *Nutrient Management in Commercial Fruits and Vegetables – Dr. Ajay Nair, ISU Horticulture*
- *Organics – Maury Wills, IFVGA Board, IDALS*
- *Pawpaw Production in Iowa – Patrick O'Malley, ISU Horticulture*
- *Pumpkins – Darrell Geisler, IFVGA Board*
- *Sweet Corn – Mike Penick, IFVGA Board*
- *Thinning Apples with Lime Sulfur – Dr. Paul Domoto, ISU Horticulture*

4:30 pm	**Silent Auction Ends**
5:30 pm	**Dinner on your own**

Saturday, January 28

7:30 am	**Registration**
8:30 am	**General Session – Growing the Giants** **Conference Room A** *Dan Carlson & Marc Peterson, Clinton* *Board Member Moderator: Fred Howell*
9:30 am	**General Session – What Institutional/Chefs Are Looking For** **Conference Room A** *Gordon Rader, Executive Chef, Indian Hills Community College* *Board Member Moderator: Kathy Hohl*
10:30 am	**Break in exhibit area**
11:00 am	**Concurrent Sessions** ● *Implications of High Tunnels, Row Covers & Nutrient Management Strategies on Fall Lettuce Production,* *Conference Room D* *Dr. Ajay Nair, ISU Horticulture* *Board Member Moderator: Scott Wilber* ● *Share the Bounty in your Community, Jordan Vernoy, Food Bank of Iowa; Lynette Spicer, Ames* *Conference Room E* *Board Member Moderator: Dick DeMoss* ● *Using the Web to Enhance Marketing, Johnice Cross, Grown Locally;* *Craig Tordsen, MarketMaker, ISU Extension* *Conference Room F* *Board Member Moderator: Kathy Hohl* ● *Foliar Sampling in Fruit Crops, Joe Hannan, ISU Extension Horticulture* *Conference Room G* *Board Member Moderator: Maury Wills*
12:00 pm	**Lunch and Trade Show**
1:00 pm	**General Session – Adding Value Through Diversification** **Conference Room A** *Jerry Mills, Illinois* *Board Member Moderator: Fred Howell*

2:00 pm **Concurrent Sessions**

- *Considerations for Starting a Roadside Market, Jerry Mills*
  Conference Room D
  Board Member Moderator: Maury Wills

- *Food Safety and How it Will Impact Your Operation, Dr. Angela Laury, ISU Food Science*
  Conference Room E
  Board Member Moderator: Eric Franzenberg

- *S.A.R.E. On-farm Research & Applying for On-farm Research Grants, Andy Larson, ISU Extension and How to Plan for On-farm Research Projects, Joe Hannan, ISU Extension*
  Conference Room F
  Board Member Moderator: Darrell Geisler

- *Spotted Wing Drosophila: Update, Laura Jesse, ISU Entomology*
  Conference Room G
  Board Member Moderator: Mike Penick

2:45 pm **Concurrent Sessions**

- *Brown Marmorated Stink Bug: Where is it and How Safe are We? Dr. Donald Lewis, ISU Entomology*
  Conference Room D
  Board Member Moderator: Kathy Hohl

- *High Tunnel Rainwater Catchment and Use in High Tunnels, Linda Naeve, ISU Extension Value Added Agriculture*
  Conference Room E
  Board Member Moderator: Scott Wilber

- *Insuring your Fruit and Vegetable Operation, Phil Larabee*
  Conference Room F
  Board Member Moderator: Maury Wills

- *Using Social Media to Enhance your Direct Marketing, Jill Speikerman*
  Conference Room G
  Board Member Moderator: Fred Howell

3:30 pm **Adjournment**

Farm to Where You Are:
Creating and Enhancing Markets for Southern Iowa Specialty Crop Producers

Final Report

Project Summary

Farm to Where You Are is a project to promote interest in the production and consumption of healthy, locally grown fresh food in a southern Iowa seven county area including Adair, Adams, Clarke, Decatur, Ringgold, Taylor and Union counties.

The focus of this project was to connect and link institutional food service operations including schools, care centers, hospitals, and independent grocers and restaurants, and the general public. All had indicated a desire to replace processed food choices with fresh and healthier food choices from local producers. The local producers included ones who expressed interest in accommodating a growing demand for locally grown foods.

This grant was utilized to provide additional technical assistance to the local food program through an additional employee to assist the food coordinator in carrying out the project work plan. Through previously awarded grants, the area food coordinator had been working on programs creating links from local food sources to consumers needing healthy food choices. Some of the gathered information such as inventories developed for tracking use of local food and production increases was used by the employee funded with this grant. The IDALS grant provided this southern Iowa area an opportunity to expand on previously completed work in creating and enhancing markets for southern Iowa specialty crop producers and educating the public on how to use locally grown foods.

Project Approach

The first step of the project was the creation of a contact list with addresses, phone number, email addresses for producers, interested producers and institutional buyers (hospitals, colleges, school food service directors, nursing homes and assisted living communities) in the southern Iowa seven (7) county area. The list consisted of approximately 120 current or interested producers and 60 institutional buyers.

Next step was the development of a survey for producers and institutional buyers to determine interest and capacity of growing, selling and buying local produce. Survey was mailed or e-mailed along with brochures for upcoming educational meetings.

Educational meetings were scheduled with the first meeting featuring Scott Platt from Iowa Department of Inspections and Appeals held in Creston, Iowa and Chariton, Iowa extension offices on February 27, 2012. The purpose of this meeting was to connect producers and buyers to make informed decision about “buying local”. Mr. Scott presented the rules and regulations for buying and selling local grown foods. State requirements and regulations were addressed. Fourteen local producers from five counties attended the Creston meeting.

Useful tools for marketing products at local markets were presented April 18, 2012 at the Clarke County Development Office, Osceola, Iowa April 18, 2012. Marsha Laux, Iowa State University Extension Value Added Ag Specialist and Kim Keller, Horticulture program assistance producer and farmer’s market

manager shared both theory and practical application to help producers grow their business. Attendees were exposed to enterprise budgets developed specifically for vegetable production, determining accurate pricing schedules and deciding the right time to expand production and upgrade equipment.

Fourteen local producers attended a presentation, "Incredible Edible Landscapes" presented by Courtney Long, Farm to ISU Coordinator for Dining Service, Iowa State University on April 30, 2012. Attendees learned how to get more out of their garden and enhance the beauty of their private or public property through edible landscaping.

Twelve community members attended a presentation by local food coordinator on local food systems at Bedford High School, May 4, 2012. Various components of food systems were defined and existing components in the community were identified. Discussion was also held on starting a farmer's market in the community.

In June, July and August 2012 fourteen workshops and demonstrations were held in various locations within the seven county southwest Iowa area. Attendees, including adults and children, were exposed to the use and preparation of various fresh local foods using many different recipes. Each attendee completed a survey form with the following questions:

Before today's presentation, how likely were you to prepare 2 or more vegetable servings a day?
After today's presentation, how likely are you to prepare 2 or more vegetable servings a day?

Before today's presentation, how likely were you to buy fresh, local produce?
After today's presentation, how likely are you to buy fresh, local produce?

At each of these workshops, employee passed out 'Buy Fresh, Buy Local' directories to connect buyers with local producers. Sometimes employee showed a power point demonstration which reiterated the benefits of buying fresh, local produce. The presentation illustrated three themes:

Fast: *By working with what people already have in their cupboards, be it a can of beans of Ramen noodles, fresh local food can up the nutritional value of these foods while adding fresh flavors*.

Fundamental: *By buying fresh, local produce the buyer supports local economy, supports sustainable agriculture and improves health.*

Fun: *By purchasing fresh, local food people can make meals more exciting by using their four senses when cooking: sight, touch, taste and smell.*

In addition, employee passed out the U.S. Department of Agriculture's 'My Plate' coloring sheet for kids which suggested the portions of food groups they should be consuming in their diets. Food demonstrations were presented at each event showing how to prepare and incorporate fresh, local produce with common pantry items such as beans or pasta. Attendees were then able to sample freshly prepared recipes. Employee focused on preparing versatile, easy, no-cook recipes with few ingredients to demonstrate that healthy food does not have to be intimidating. *Each event had twenty to fifty people who stopped at employee's booth*.

Use of Local Foods Demonstrations

Event	Date	Attendance
Home and Garden Show YMCA, Creston (Union County)	Feb, 2012	150
Icarian Village's Civil War (Adams County)	June 23, 2012	25
Community Gardens Annual Open House (Clarke County)	June 25, 2012	30
Lamoni's Farmers Market (Decatur County)	July 7, 2012	20
Leon WIC Clinic (Decatur County)	July 10, 2012	25
Ringgold County Fair (Ringgold County)	July 13, 2012	20
Osceola WIC Clinic (Clarke County)	July 19, 2012	22
Mt. Ayr Days (Ringgold County)	July 21, 2012	20
Greenfield's Farmers Market (Adair County)	July 26, 2012	20+
Lenox WIC Clinic (Taylor County)	August 8, 2012	20
Greenfield WIC Clinic (Adair County)	August 13, 2012	20
Creston WIC Clinic (Union County)	August 20, 2012	20
Bedford WIC Clinic (Taylor County)	August 22, 2012	20
Creston WIC Clinic (Union County)	August 22, 2012	20

Goals and Outcomes Achieved

Because most producers were just getting started in production, the survey approach was to start with a beginning season baseline and follow up with a mid to late season survey of institutional or restaurant sales.

Goal 1	Expand institutional food sales with 2 CSA's, 15 existing and 6 new producers.	Results
Benchmark	Specialty crop sales expand by 3%, April through October 2012.	5.5 % increase in institutional sales, April through October 2012. 2 CSA's and at least 14 producers participated.
Goal 2	Increase specialty crop purchases by 4 schools, 6 restaurants, and 5 grocery stores in 2012.	*
Benchmark	Specialty crop purchases expand by 2% April-October.	Local specialty crop purchases made by 2 schools, 2 restaurants, and 5 grocery stores. Local crop purchases increased 3 % during April-October 2012.
Goal 3	Create fresh food purchasing programs that increase purchase of locally grown products annually with 4 hospitals and 6 assisted living facilities.	*
Benchmark	Specialty crop purchases average an increase of 1% per month April-October 2012.	Two hospitals and 4 nursing homes/assisted living facilities increased purchases about 1% monthly during April-October 2012.
Goal 4	Conduct 14 workshops or demonstrations using locally grown specialty crops to institutions and general public.	*
Benchmark	Use of locally grown specialty crops has increased with 75% of participants.	14 demonstrations conducted in 7 county area. 41% of workshop participants increased use of locally grown crops.

Sixty-six institutions were contacted within the seven county area about their interest in using locally grown food. Most expressed some interest in purchasing local foods. Their concerns included not having time to contact producers, producers being difficult to contact, and limited budgets. In some cases, staff would need education in the preparation of fresh foods for their clients.

One hundred twenty existing and new producers were identified within the seven county area. Common producer concerns include inability or unwillingness to produce a specified amount of produce for institutional use, impacts of the 2012 drought on production, being content with marketing through local farmers markets, and being unaware of the potential size of the institutional market.

A major project outcome is the identified need for more educational and direct technical assistance for both producers and consumers in this area. It is going to take substantial time and technical assistance to develop a significant local food system throughout this area.

Beneficiaries

Direct beneficiaries of the project activities were consumers and current and/or potential specialty crop producers who participated in one or more of the various workshops and activities of this project. At least 140 limited resource persons were served by the projects as participants in the WIC clinics.

Lessons Learned

Overall people who attended the farmer's markets were already educated on buying fresh, local ingredients, but the demonstration and preparation of fresh recipes for the public gave attendees new ideas on what to do with the fresh produce. The events encouraged customers to buy a wider range of produce at the farmer's markets. The general observation was the public would like to see a wider variety of fresh produce and would like to purchase fresh eggs.

Although most of the consumers were willing and interested in tasting the food samples, the observation was the people who attend WIC clinics needed more encouragement/motivation and more information on buying fresh, local ingredients from their farmer's markets or other local producers. They also needed more instruction on how to prepare fresh, local produce. There was also a concern that the people who didn't speak English may not receive enough information for buying fresh, local produce.

In order for institutions and restaurants to be committed to purchasing and using locally produced specialty crops, they must be assured of a steady supply of these commodities in the volumes their institution needs. There is a need for a single point of contact for both institutions and producers to coordinate production and consumption of locally produced foods. This contact could take orders for local foods, and make connections with the necessary producers, to fill the orders. This function might possibly be filled by a producer cooperative.

Contact Person

Alexi Groumoutis
Food Coordinator
Southern Iowa RC&D Area Office
Creston, IA 50801
agroumoutis@hotmail.com

Additional Information

The Southern Iowa RC&D Area, Inc. continues to work in building a local foods system. This project has provided valuable information and experience that we are building on to help diversify agricultural production in southern Iowa and help to improve the health of the region's citizens. We recognize that this is a long-term effort with many small incremental steps. We will continue to seek grants and other financial assistance to provide the necessary technical assistance in order to assist our citizens and businesses make this important change.

Iowa Nut Growers Association Specialty Crops Grant Final Report to IDALS and USDA

Project Title:

Connecting Iowa Nut Growers: Past-Present-Future

Project Summary:

Perennial crops are an underutilized strategy for achieving multiple benefits on agricultural land. As the Iowa Nutrient Reduction Strategy shows, practices that include perennials show significant reductions in both Nitrogen and Phosphorous. Nut trees and shrubs are a couple of the many perennial crops that can be grown in Iowa and provide ecological benefits beyond the primary nut crop harvested. Organizations like the Iowa Nut Growers Association have members with decades of experience to teach others how to grow trees and shrubs. As these growers age we risk losing the collective knowledge they possess, just at a crucial time when we need to expand perennial cropping systems to achieve the 41% reduction in N and 29% reduction in P called for in the Iowa Nutrient Reduction Strategy. This project worked to connect nut growers past, present, and future through outreach, education, and promotion of nuts and nut culture in Iowa.

Project Approach:

The first objective was to produce a nut growing video. Five growers were identified and audio interviews conducted. Five video production companies were interviewed for participation on the project and one selected. Information from the audio interviews was used to develop a script for taping in-studio. The taped interviews, combined with b-roll footage, were used to produce the final past present future video as well as the individual nut videos and nut judging video.

The second objective of education, outreach, and promotion was achieved through a website, field days, and nut growers directory. A web developer was identified and worked with the INGA to develop a website http://iowanutgrowers.com which contains info about the organization, news and events, information about different nuts grown in Iowa, and the nut growers directory. To date it has been viewed over 1,000 times. Our social network marketing campaign consists of a YouTube page that hosts our various videos. In total over 650 views have been tallied on the various nut videos produced from this project.

Three field days were hosted by the Iowa Nut Growers Association Members:

- May 12th, 2012 – Walnut/Hickory Field Day, topics included succession plantings, animal predation, growth cycles, harvesting, and more. Forty four growers and potential growers attended this field day.
- Sept. 15th, 2012 – Hazelnut Field Day, topics included growth cycles, maintenance, harvesting and processing nuts, as well as orchard spacing and layout. Eighteen growers and potential growers attended this field day.
- January 26th, 2013 – Nut Evaluation & Processing Field Day, topics included nut evaluation, various processing equipment for walnuts, hazelnuts, hickories, and chestnuts, and nut culture in Iowa. Twenty four growers and potential growers attended this field day.

A statewide nut growers directory was developed to connect growers to growers and growers to consumers of nuts. A short questionnaire was developed to gather individual data on growers operations. This was posted to the website for on-line completion as well as being available in hardcopy at all our events. In total, thirty four individuals submitted information about their operation for inclusion into the publication which is available as a PDF on the website. We continue to update the document as new submissions are received. Information like

what and where they are growing, whether they market any nuts, have special varieties or genotypes they are experimenting with, or unique processing equipment is all included.

Goals and Outcomes Achieved:

This project had many goals and outcomes specific to the objectives outlined. The goals associated with website views and video views were short, as shown below:

- Goal of 5,000 viewings of the video vs. actual views of 650 on YouTube and 400 DVD's distributed.
- Goal of 7,500 hits to the website vs. actual hits of 1,089

Specific to the field days and measured increases in knowledge, we met our goal of 50 individuals and at least 15 resource professionals attending. Knowledge gained was measured using surveys administered pre-field day and then again post-field day to gauge any increase. With a goal of increasing knowledge learned by 30% we were successful with an actual rate exceeding 40% increase in knowledge learned relative to the topic. This is not surprising considering the great speakers and topics presented at the field days.

Finally, we had a goal of increasing sales of nuts and nut products by 10% as a result of the nut growers directory and promoting growers with nuts to sell. This goal was not met. Results of the first survey reveal that the vast majority of growers consider themselves hobbyists at this point and time and thus are not marketing any nuts. Only five growers were marketing any nuts and the volumes identified were miniscule. Thus, the follow-up survey was revised to ask participants if they marketed nuts, why and why not, and then solicited feedback on topics or issues that need to be explored in order for them to start marketing.

Again, only five growers replied that they did any marketing. The three primary barriers to marketing identified by those growers who are not currently marketing include:

- Hardly any crop/little volume (15)
- Lack of processing equipment (15)
- Not sure about potential markets (12)

This reveals an opportunity for the Iowa Nut Growers Association to focus work in these identified areas.

Although we fell short of some of our immediate goals, we exceeded expectations in several key areas resulting in positive outcomes. For instance, we were able to stretch our video production budget to accommodate the videos of the individual nuts. This has been proven to be extremely beneficial because we have received overwhelming feedback on how popular the videos are. Another positive outcome is an increase in membership by more than 12 with at least nine signing up during our field days. Interest is growing in nut production and perennial crops.

Beneficiaries:

Beneficiaries of this project include existing nut growers as well as potential new nut growers. Individuals impacted are shown below:

Nut video views	At least 1,050
Website views	At least
May 12th Field Day	44
Sept. 15th Field Day	18
January 26th Field Day	24
New members joining at field days	9

Lessons Learned:

The most obvious lesson learned was that very few Iowa nut growers are marketing their nuts. The reasons are varied but by and large few nuts are being bought and sold in the state. This represents a tremendous opportunity for growers to collaborate on processing and marketing to build a brand and a demonstrated need for nut growers statewide.

The initial estimates for website hits and views of the video was overly optimistic and probably not the best metric to use. A more realistic metric might be views per week. The videos from this this project average 50 views per week. Our need to tape into the fall harvest season, combined with the additional nut judging video, pushed final completion into Feb. 2013 leaving little time to rack up views before final reporting.

In working with the video production company ask for a price list of services to be included in any bid. This way you can negotiate specific tasks. For instance we were able to stretch our dollars further by having the primary investigator write the scripts and work with the video company on final editing. This flexibility was made possible by having a transparent price list so that some tasks could be handled by others.

Contact Person:

Jeff Jensen
515-320-2635
jeff@jenagres.com

Additional Information:

Attachments:

- INGA Brochure
- Nut Growers Directory
- Questionnaire and Info sheet
- Cover Letter
- Follow-up Survey

INGA

The Iowa Nut Growers Association is one of the oldest nut growing organizations in the country. Started in the early 1940's and incorporated in the 1960's it has a long tradition of supporting nut growing in Iowa and throughout the Midwest.

Consider becoming a member today, membership is only $10 annually and provides great benefits, including:

- Quarterly in-person meetings allow for fellowship and networking with other nut growers
- Learn about the diverse nut culture in Iowa including the best opportunities for nut growing for profit
- Field days and other events provide educational opportunities for new or prospective growers

Iowa Nut Growers Association

President - Gary Fernald

Membership Secretary -
Doris Kentner
116 N. Dewey
Osceola, IA 50213

www.iowanutgrowers.com

Species of nuts grown in Iowa:

- Black Walnut
- Hickory
- Pecan
- Hican
- Chestnuts
- Hazelnuts
- Butternut
- Heartnut

www.iowanutgrowers.com

INGA

Iowa Nut Growers Association

Iowa…...a State Full of Nuts!

Iowa is blessed with some of highest quality soil in the world and situated in the "heart" of the heartland. Our location and growing season mean that we can grow a wide range of nutcrops. In fact, we are unique in the number of nut species we can grow. From Black Walnut to Hazelnuts to Pecans the opportunities are wide open.

The purpose of the INGA includes:

1. Promote interest in nut-bearing plants
2. Scientific research in their breeding and culture
3. Standardization of varietal names
4. Dissemination of information concerning the above objectives
5. Encouragement of greater use of nut trees in IA agriculture and home landscape plantings

Field days are a great way for members to learn more about growing nuts in Iowa.

www.iowanutgrowers.com

Annual Nut Evaluation

INGA hosts an annual nut evaluation in January where members can bring in their nuts for evaluation and scoring. Nuts that are typically scored include Pecans, Black Walnut, Hickories, and Hazelnuts.

INGA member Al Wyckoff, our designated "crack man," cracks out a Black Walnut at the annual nut evaluation.

Annual Spring Meeting and Auction

Our Spring Annual Meeting is typically held in March at the Newton Arboretum where we learn about the various projects going on. The auction that follows gives members a chance to bid on everything from nutmeats to scion wood to crafts and even a weekend getaway to Table Rock Lake near Branson, Missouri.

Iowa State Fair Nut Judging Competition

INGA also hosts the nut judging competition at the Iowa State Fair every year. Members help judge different nut samples from throughout the state.

What is the Iowa Nut Growers Association?

The INGA is an Iowa non-profit corporation dedicated to furthering nut culture and nut growing of all types in Iowa and throughout the Midwest.

What sorts of programs/ activities do you have?

The INGA meets quarterly in-person and hosts field days and an annual nut evaluation in January. We sponsor the nut judging competition at the Iowa State Fair and are represented at the Iowa Horticultural Society by longtime member Al Beck.

What's the benefit for me?

INGA publishes a newsletter quarterly with interesting articles, info on nut growing, and educational opportunities. We have developed and maintain a statewide nut growers directory highlighting a diverse array of growers from across the state.

How can I join?

Annual membership is $10.00 with checks made out to Iowa Nut Growers Association or INGA. Complete the INGA application at right and mail, with check, to membership Secretary Doris Kentner at the following address:

Doris Kentner
116 N. Dewey
Osceola, IA 50213

Name:_____

_____

Address:_____

_____

City:_____

State/ZIP:_____

Phone#:_____

Email:_____

_____

Website:_____

_____

_____ I'm interested in volunteer opportunities with the INGA

_____ I would be interested in serving a leadership role with INGA

Join Today!

A project of the Iowa Nut Growers Association

Funds for this project were provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship.

To access this directory on-line visit our website at www.iowanutgrowers.com

If you grow nuts in the state of Iowa and would like to be included in this directory please contact info@iowanutgrowers.com

These handcrafted wooden bowls and jewelry boxes were made by INGA member Harold Kentner. The intricate detail work is nothing less than amazing.

Compiled by Jeff Jensen
INGA
3-18-12

Funds for this project were provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship.

Iowa is a blessed state with high quality soils and strategically located in the heart of the Midwest. Our central location allows a wide range of nuts to be grown here. Black Walnuts, chestnuts, hazelnuts, butternuts, heartnuts, hickories, and even pecans can and do all grow in Iowa. Just as varied as the nut species we can grow, are the nut growers themselves; leading some to quip "Iowa…..a state full of nuts!"

Take some time to review this directory and find out who may be growing nuts in your neck of the woods.

Bill Hanson
19304 238th Ave
Centerville IA 52544
Contact Ph# 641-856-8375
benswalnuts@yahoo.com

Bill grows Black Walnuts and Shagbark Hickory and markets to Heartland Nuts N More in Valparaiso NE. A neighbor also markets some of his black walnuts to Hy-Vee and Fareway stores in southern Iowa

"We have a closely managed orchard of black walnuts and would like to encourage additional growers. Something worth emphasizing is having two early ripening cultivars (??? & Sparrow), two mid ripening cultivars (S14T & Kwik Krop), and two late season ripening cultivars (Hay & Crane); although we are replacing our Sparrow cultivars with S129 for improved yields."

Jeffrey Dean Carstens
1078 X Ave
Boone IA 50036
Contact Ph# 515-451-1664
jdc@iastate.edu

Jeff grows Black Walnuts, Shagbark & Shellbark Hickory, Pecans, Butternuts, and American Hazelnuts. He is currently not doing any marketing.

"I'm basically trying to increase biodiversity in my woods using material from native, high-quality, Iowa populations. All of my seedlings are basically one year old seedlings grown from material I've collected myself."

Rodney Stevenson
31251 570th St
Moulton IA 52572
Contact Ph# 641-642-3225

Rod grows Black Walnut, Pecans, Chinese Chestnut, and Hybrid Hazels. He is currently not doing any marketing.

"I'm breeding Chinese chestnut using many promising varieties originating from in the U.S. and China."

Tom Wahl
13882 I Ave
Wapello IA 52653
Contact Ph# 319-729-5905
Website: redfernfarm.com

Tom grows a wide selection of nut species including Black Walnut, Carpathian Walnut, Shagbark & Shellbark Hickory, Pecans, American Chestnut, Chinese Chestnut, European Chestnut, Japanese Chestnut, Hybrid Chestnut, Butternut, American Hazelnut, Hybrid Hazelnuts, European Hazelnuts, Buartnut, Gingko, Pine Nuts, and Hicans. Tom currently markets nuts through a variety of channels and from the farm.

"I'm doing some breeding for improved cultivars and have a couple of special chestnut trees, including 'Shotgun' which has large nuts, is high-quality, and bears heavy production; and 'RF Super' which has an XXL nut and heavy production."

Billy Herren
1085 County Home Rd.
Springville IA 52336-9777
Contact Ph# 319-854-7404

Billy grows Black Walnut, Heartnut, Pecans, Chinese Chestnut, Butternut, Buartnut, Burr Oak, and English Oak. Billy is not currently marketing any nuts.

T.R. Sandersfeld
170 E. Washington St
Marengo IA 52301
Contact Ph# 319-642-7077

T.R. grows Black Walnut, Shellbark Hickory, Pecans, and American Hazelnut. Mr. Sandersfeld is not currently marketing any nuts.

Ed Cochran
1811 Spring St
Grinnell IA 50112
Contact Ph# 641-236-8494

Ed grows Black Walnut, Shagbark & Shellbark Hickory, and Pecans; and is not currently marketing any nuts.

"Nut trees and other trees are just a hobby. I have found the people in the Iowa Nut Growers Association to be very knowledgeable and helpful."

John Popson
1288 132nd Place
Knoxville IA 50138
Contact Ph# 641-828-8714

John grows Black Walnuts and does not do any marketing.

Matt & Karen Koenig
1510 110th St
Hampton IA 50441
Contact Ph# 641-456-4903

Matt & Karen grow Black Walnuts and American Hazelnuts and market nuts at the Hampton and Iowa Falls Farmers Markets, as well as from the farm.

"We use sustainable methods to increase productivity of all our 25 acres."

Allan R Beck
736 Hillcrest
Story City IA 50248
Contact Ph# 515-733-2674
arbndb@iowatelecom.net

Al grows Hybrid Hazelnuts and does not market any nuts. Instead, he is focused on breeding superior plants for future generations.

"I am currently growing small hybrid hazelnuts. By formal education my training is in plant genetics and breeding at the undergraduate and graduate level. I have worked at plant breeding for a number of years and introduced woody and herbaceous ornamentals at Iowa State University. Therefore, my work with hazels will concentrate on growing seedlings for selection of superior types, etc."

Ron Richardson
3014 Norwalk LN.
Missouri Valley IA 51555
Contact Ph# 712-644-5173
ronjeri@iowatelecom.net

Ron grows a variety of nut crops in Western Iowa including: Black Walnuts, Carpathian Walnuts, Heartnuts, Shagbark Hickory, Pecans, Buartnut, Butternut, and American Hazelnuts. Nuts are marketed through Heartland Nuts N More.

Dell Lawrence
1290 Marion Airport RD.
Marion IA 52302
Contact Ph# 319-854-7430
delllawrence@netins.net

Dell grows Black Walnuts, Shagbark Hickory, & Butternuts. He markets at the Rockwell-Collins Craft Fair, the Farmers Market in Mt. Vernon & Iowa City, from the farm, and through garage sales in Springville and Urbana.

Mary Hays
8837 Denton Place
Johnston IA 50131
Contact Ph# 515-986-3468
mhays@dwx.com

Mary grows Black Walnuts, Carpathian Walnuts, Pecans, Butternuts, and American Hazelnuts. She is not marketing any nuts at this time.

"I am a hobbyist trying to restore the health of some overgrazed timber."

Harold & Doris Kentner
116 N Dewey St.
Osceola IA 50213
Contact Ph# 641-342-2601
Cell# 641-414-0057
harold_doris@iowatelecom.net

Harold & Doris grow Black Walnuts, Heartnuts, Shagbark & Shellbark Hickory, Pecans, Chinese Chestnut, Butternuts, and American Hazelnuts. They do not market any nuts at this time.

"I also grow Paw Paw, Aroniaberry, and Persimmons; some from seed and some grafted."

Al Wyckoff
12211 NE 22nd St.
Ankeny IA 50021-9195
Contact Ph# 515-964-2521

Al grows Black Walnuts, Carpathian Walnuts, Heartnuts, Chinese Chestnut, and American Hazelnuts. Al is not marketing any nuts at this time.

"I also grow Paw Paw and Aroniaberry."

Pat Hayes – Whitewater Native Seeds
967 Riker St.
Dubuque IA 52003
Contact Ph# 563-582-8911
wwnativeseeds@aol.com

Pat grows Black Walnuts, Heartnuts, Shagbark & Shellbark Hickory, Pecans, American Chestnut, Chinese Chestnut, Butternut, Hybrid Hazelnuts, and American Hazelnuts. Pat is direct marketing Chinese chestnut and American hazels from the farm.

Patty Judas
1212 Bauch St.
Waterloo IA 50701
Contact Ph# 319-415-1474
Paddy40@mchsi.com

Patty grows Shagbark Hickory and American Hazelnuts. She is currently not doing any marketing.

Betty Davie
1001 River St.
Decorah IA 52101
Contact Ph# 563-382-0271

Betty grows Black Walnuts and is not currently marketing nuts.

Wayne Wangsness
1869 Middle Ossian Rd.
Decorah IA 52101
Contact Ph# 563-532-9431

Wayne grows Black Walnuts on a portion of his 75 acre property and is not marketing any nuts at this time.

"My farm is certified organic but not the woods. I planted for lumber but have lots of nuts coming; however, it was not planted for machine harvest."

Jeff Jensen – Hazel Acres
3503 40th Ave
Fenton IA 50539
Contact Ph# 515-320-2635
jeff@jenagres.com

Jeff grows Hybrid Hazelnuts on the family farm and is interested in other nuts like chestnut, hickory, and pecan. He has just began marketing in-shell nuts and kernels.

"Things can get downright nutty at Hazel Acres. We have over 500+ hazelnut bushes growing with most producing. We keep track of most bushes searching for superior plants with good yields of high quality kernels that taste fantastic. Look for some value-added products in the coming year. We welcome visitors and are available for tours of the orchard." Hint: roasting hazelnut kernels really brings out the flavor, roast kernels (2 cups) in the oven at 350F for 10-12 minutes depending on oven.

David G. Johnson
3500 Coolville Station Rd.
Coolville OH 45723-9421
Contact Ph# 740-667-6431
dgjohns@frognet.net

David grows Black Walnut, Shagbark & Shellbark Hickory, and Pecans; he is not currently doing any marketing.

"I'm a cultivar collector and 1 man nursery operation interested in hickory, hican, pecan and walnut."

Rose Casteel
1553 York Rd
Missouri Valley IA 51555
Contact Ph# 712-642-4370

Rose grows Black Walnut, Pecans, butternuts, and hybrid hazelnuts. She is not doing any marketing at this time.

"I only have a few nut trees except black walnuts that are natural here. I planted 2 Thomas black walnuts that are small, the rest are natural here. I am retired and do most of the work alone."

Don Smith
3321 Terrace Lake Rd.
Crawfordsville IA 52621
Contact Ph# 319-254-2261
dshsmith@iowatelecom.net

Don grows Black Walnut, Heartnut, Shagbark & Shellbark Hickory, Chinese Chestnut, American Hazelnuts, Buartnut, Hybrid Hazelnuts, and Hybrid Black Walnut. He is not doing any marketing at this time.

"We grow for our own personal (family) consumption at this point. Hazelnut cultivars need to be improved before I feel there is any sense in putting in more plantings."

Duane Dufoe
1610 3rd Ave
Grinnell IA 50112
Contact Ph# 641-236-3780

Duane grows Black Walnut, Shagbark Hickory, and Hybrid Hazelnuts. He is not currently doing any marketing.

George E Jackson Jr.
5192 270th St.
Melrose IA 52569
Contact Ph# 641-726-3058
jacksmarilyn@hotmail.com

George has 2 Black Walnut trees, 3 Carpathian Walnut trees, 4 Heartnut, 2 Pecans, 4 Chinese Chestnut, and 3 Butternut trees and does not do any marketing.

"All cultivars are less than 9 years old (black walnuts were replaced in 2011 due to drowning. I've harvested about 2 dozen chestnuts the last two years. Heartnuts seem to be very vigorous trees but have yet to bear nuts. Butternuts are also vigorous and one tree yielded 18 nuts in 2011. Pecans are doing well but have not yielded any nuts yet. I'm planting 3 MO. Mamoth Hickories in 2012. All trees we've purchased were from Miller Nursery and from Stark Bros. Nursery."

W. Munger
#5060 145th Ave
Linn Grove IA 51033-8049

Mr. Munger grows several nut species including: Black Walnut, Heartnut, Shellbark Hickory, American Chestnut, Hybrid Chestnut, and American Hazelnuts. He does not do any marketing at this time.

S. Jane Cooley
1709 Ohio Rd.
Corydon IA 50060
Contact Ph# 641-872-2714
cooleysj@hotmail.com

Jane grows Black Walnuts and is an aggregator for Hammons Products Company in Stockton, MO. Hammons provides her a hulling machine and bags; they also set the price. Folks from several counties bring their nuts to her for hulling and bagging.

”I have one tree that produces excellent flavored nuts that crack well and produce offspring that grow rapidly, are straight, and start producing at about 6 years of age.”

Dave Bartemes
4404 72nd St
Urbandale IA 50322
Contact Ph# 515-331-4902
Dwbartemes87@q.com

Dave grows several nut species including: Black Walnuts, Shagbark Hickory, Pecans, & American Hazelnuts. He markets a little to close friends.

“I grow mostly for timber but I have one acre for walnuts; which is not producing yet. I intend to graft trees that I grow in my home nursery.”

Iowa Nut Growers Association Statewide Nut Grower's Directory

Directory Information Sheet & Questionnaire

INGA is preparing a statewide nut growers directory that features Iowa nut growers. We would like to include you and your operation in this directory. Please fill out as much information below as possible. Questions can be directed to info@iowanutgrowers.com or to Jeff Jensen at 515-320-2635. Alternatively, you can also complete the information on-line at www.iowanutgrowers.com

Name: _____

Address: _____

Phone: _____Email:_____

Website: _____

What nuts do you currently grow? (Please circle)

Black Walnuts Carpathian Walnut Heartnut Shagbark Hickory

Shellbark Hickory Pecans American Chestnut Chinese Chestnut

European Chestnut Japanese Chestnut Hybrid Chestnut Butternut American Hazelnuts

Hybrid Hazelnuts European Hazelnut Buartnut Other: _____

Are you marketing any nuts? (Please circle) **YES** **NO**

If so, where do you market? [farmers market -which one(s)?, from the farm -same address as above?, products in any stores –which ones?]

_____

_____

_____

_____

Over

The space below is for you to provide a little info on your operation. Using organic, biodynamic, or other methods? Tell us about it. Doing your own backyard breeding? Tell us about it. Have a particularly promising cultivar or special tree/bush? Tell us about it. The point is this it's your opportunity to share anything you want in 250 words or less.

_____

_____

_____

_____

The short questionnaire below is optional to complete. Doing so will assist us in developing an accurate summary of nut growing in Iowa. No individual information will be shared and results only reported in the aggregate.

Of the nuts you are growing, what volume of production do you have? Pounds, tons, or volume is acceptable; please list all nut species you are growing.

_____
_____
_____

Of the nuts you are growing, what volume of sales you have? Pounds, tons, or volume is acceptable; please list all nut species you are growing.

_____
_____
_____

Of the nuts you are growing and marketing, what sort of price range are you able to sell at?

_____
_____

Do you estimate an increase in volume of nuts produced in the next: please write estimate corresponding to the timeframe.

1 year? _____

5 years? _____

10 years? _____

"Funds for this project were provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship."

Thank You!

I	N
G	A

Iowa Nut Growers Association

www.iowanutgrowers.com

February 2, 2012

Dear INGA Member,

The Iowa Nut Growers Association was recently awarded a USDA Specialty Crops Grant for our project Iowa Nut Growers: Past-Present-Future. A component of our project is developing a state wide nut grower's directory listing all the nut growers in Iowa and what they grow. We will be hosting this directory on our website www.iowanutgrowers.com with print copies available upon request. In addition, we are trying to get feedback on the breadth and depth of nut growing in Iowa. We have developed a short questionnaire that, when completed by growers, should provide us with some good statistics on the volume of nuts grown in Iowa, the different species of nuts grown, along with aggregated sales figures.

The nut grower's directory information sheet & questionnaire is enclosed with this letter. Please complete and mail back to:

Jeff Jensen
3503 40th Ave
Fenton IA 50539

Alternatively, you can complete the information sheet & questionnaire on-line at www.iowanutgrowers.com saving you a stamp. Regarding the survey, it is optional and no individual information will be shared; results will only be reported in the aggregate.

We appreciate you taking the time to provide us feedback about nut growing in Iowa and look forward to your inclusion in the nut grower's directory. Please contact info@iowanutgrowers.com with any questions or concerns you may have or you can contact Jeff Jensen via phone at 515-320-2635.

I have also included a brochure for the upcoming 2012 Upper Midwest Hazelnut Growers Conference being hosted by the INGA at the Hotel Winneshiek in Decorah IA March 2nd & 3rd.

Warmest regards,

Jeff Jensen
Iowa Nut Growers Association

"Funds for this project were provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship."

Iowa Nut Growers Association Follow-up Survey

The Iowa Nut Growers Association (INGA) conducted a survey in conjunction with the development of the nut grower's directory in 2012 to get a clearer picture of volumes of nuts in Iowa, as well as some estimate of what is being marketed. The intent was to establish a baseline among growers marketing nuts and then gauge any increases in sales.

The results of the initial survey show that very few growers (less than 10) are actually marketing any nuts; and only three that could be considered even a small commercial operation. We want to know why. Help us understand motivations for marketing (or not marketing), barriers or obstacles encountered, and any suggestions for overcoming these obstacles via the short survey below.

Your feedback is important.

1. Are you currently marketing any nuts? Yes_____ No_____

2. What is your motivation for either marketing or not marketing nuts?

3. Please select any barriers or obstacles to marketing your nut crop, if any.

____ Hardly any crop/little volume

____ Not sure if I can legally sell

____ Lack of processing equipment

____ Other (please be as specific as possible)

_____ Not sure about potential markets

_____ Not licensed or certified to sell to public

_____ I'm concerned about liability issues

over

4. How could the Iowa Nut Growers Association assist growers with overcoming identified obstacles?

____ Education on different nuts/production systems

____ Training on food safety and Good Ag. Practices (GAP)

____ Workshop/info. on legally selling from the farm

____ Business development assistance

____ Developing shared processing equip.

_____ Other (be as specific as possible)

5. Do you have interest in working together with other growers in any of the following ways?

____ Cooperative nut processing ____ Cooperative marketing ____ Cooperative purchasing

6. Any additional comments?

Completed questionnaire can be sent to Jeff Jensen, 3503 40th Ave, Fenton IA 50539. Tele. # 515-320-6756

Funds for this project were provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship.

Thank You!

Project title

Increased Production of Peach and Pear with Improved Cultivars to Increase Profitability and Consumption of Iowa Specialty Crops

Project Summary

Climate is a limiting factor for some specialty fruit crops in Iowa. Two crops that have been limited by the Iowa's climate have been pears and peaches. Recent breeding programs have developed fruit plant selections that relieve some of Iowa's climatic constraints. Cold tender peach trees show flower damage from when winter temperatures of -20 degrees F or colder. Similarly, Iowa's wet and humid climate encourages fireblight disease in pear crops. In extreme cases, fireblight can devastate an orchard with little chance for control. New cultivars have been selected from several institutions that can be grown in Iowa with less fear of orchard devastation from cold injury and disease influence. We believe that these newer selections of peaches and pears can become a profitable specialty crop entity in Iowa. Conducting trials of various cultivars and disseminating the information to Iowa growers will encourage the production of locally grown produce and increase fresh fruit to Iowa consumers. Experimental and newly released cultivars will assist with increased production and more high quality, marketable fruit. Dissemination of the data and observations collected can assist Iowa specialty fruit crop growers with production practices and enhance their ability to become more sustainable and profitable.

Project Approach

- The initial goal is to gain base data on peach and pear cultivars under Iowa conditions. The design was to replicate each cultivar five times. Our objectives were to look at survivability of trees, marketable yield weight, size and number of fruit.
- In spring 2011 prior to implementation of the specialty crops grant 72 peach and pear trees were planted at the Iowa State University Horticulture Research Station (HRS). These trees were paid for by HRS.

- In January 2012, after implementation of this grant, an initial report on the project listing the cultivars planted was shared at the Iowa Fruit & Vegetable Growers Association (IFVGA) Annual Convention by Dennis Portz of HRS.
- Trees were pruned in March, 2012.
- For all three years the tree planting was weeded, pruned, and sprayed for insect control, and wire cages were put on for protection from rabbits.
- In April of 2012 a meeting of all of the principals involved with the project decided to complete the planting with 58 more trees to be planted in spring 2013. Trees were pruned.
- 2012 was the second year for the trees at the Hort. Station.
- In January 2013 Patrick O'Malley gave a presentation at IFVGA on tree fruit in Iowa in which he used information from this project.
- In March of 2013 trees were pruned. O'Malley noted at that time the peach trees had viable flower buds.
- In May 2013 58 additional trees were planted bringing the total to 130. See attached plot plan for the project which shows placement of each of the cultivars.
- In June 2013 peach and pear trees had fruit thinned.
- In August 2013 the pear/peach trial was a featured stop at the IFVGA Horticulture Station Fruit & Vegetable Field Day. Information shared at the field day included: Selecting a site, cultivars that better fit Iowa conditions, and establishment pruning techniques. Desirable attributes included high chill hours for peaches and fireblight resistance for pear.
- Also this month the first fruit was harvested and permanent irrigation was installed.
- Harvest of fruit was completed on September 9. See attached harvest sheet (note that some pears with low numbers of fruit may not have been recorded).

Goals and Outcomes Achieved

There were 72 trees established in spring 2011 planting. There are six European pear cultivars represented by 22 trees. There are five Asian pear cultivars with five of each for a total of 25 trees. There are five peach cultivars with five of each for a total of 25 trees. In summary 67 of these trees had at least some fruit in 2013. This trial proved that Asian pears, European pears and peaches could be grown in the climate of central Iowa. The 58 additional trees were planted in 2013. They consist of three European pear cultivars represented by 13 trees. There are seven Asian pear cultivars with five of each for a total of 35 trees. There are two peach cultivars with five of each for a total of 10 trees. Growers throughout the state are aware of this trial through newsletters and by two presentations at the IFVGA Annual Conference in Ankeny in 2012 and 2013. Many growers had a chance to see the trees in person and ask questions at the August 2013 field day at the ISU Horticulture Research Station. These three events had in excess of 150 participants. Emphasis at these events was site selection, cultivar selection, establishment pruning, fertility, and pest and weed control.

This project is a beginning to show that Iowa growers can diversify and increase their sales of specialty fruit crops of pears and peaches in Iowa. See also 'Lessons Learned' section. Since this trial was initiated (but before any results have been disseminated) three new acres of peaches near West Branch, IA and a new acre of pear near Parnell, IA were established. Once we have a few years of results hopefully it will encourage initiation of other new plantings.

A major goal of this project is to increase in the availability of fresh, Iowa-grown specialty fruit available to Iowa consumers Some of the limited number of peaches in this initial harvest (2013) were served at Iowa State University Dining (and also to ISU President Leath).

Another anticipated was higher profitability for Iowa specialty crop growers. Tree ripened Iowa peaches can easily bring in $2.00/lb. Considerably more than apples, but with a similar to slightly less input.

The initial Research results have been published in the ISU Research and Demonstration Farm Progress Reports, which is available in print and web format. See below.

We will continue to take data off the trees as they approach maturity. Adaptation by growers will be measured by comparing Statistics of Agriculture data from different time periods.

Beneficiaries

Iowa State University Research and Demonstration Farms, specifically Iowa State University Horticulture Research Station represented by Nick Howell, Lynn Schroeder, and Brandon Carpenter and Iowa State University Extension, represented by Patrick O'Malley, Commercial Horticulture Field Specialist were able to establish a pear/peach orchard of 130 trees. The trees were maintained and produced first fruit in August, 2013. After collecting data the Hort. Station was able to sell some of the fruit to defray some of their expenses. In fact, some of the peaches were served at the Knoll, residence of the President of ISU.

Iowa Fruit and Vegetable Growers Association (IFVGA) were able to view a viable and productive fruit tree planting. Some are very interested in the fireblight resistant pears, Asian pears and peaches. Three presentations on the project had a total of 150 people. A grower near West Branch has subsequently planted over 1000 peach trees.

Lessons Learned

- The major problem/delay on this project was the departure in spring 2012 of Dennis Portz from HRDS to a position in private industry.
- In spring 2012 Patrick O'Malley, Nick Howell (HRS Superintendent) and Lynn Schroeder decided to continue this very worthwhile project even in the absence of Dennis Portz.
- The loss of Dennis Portz caused lost time and the additional trees were not able to be ordered for spring 2012 planting but rather had to wait until spring 2013.
- By planning a year ahead of time for 2013 planting we were able to get more desirable cultivars.
- There was no winter cold temperature below -18 F the second winter after planting that would have killed peach flower buds. Thus they did flower in spring 2013.
- Pears and in particular European pears very seldom flower and produce fruit the third year after planting. However, all six European and all five Asian pears had at least some trees that had fruit (4/5 'Moonglow' had no fruit at all, 1 'Shinsui' had no fruit). I suspect the stress from the drought of 2012 may have ended their juvenile phase quicker and allowed them to set flower buds during summer of 2012.
- The projects participants had limited knowledge on growing peaches. In an impromptu experiment the second tree of 'Contender' and of 'PF25' peach were not thinned in June when the other peach trees were thinned. When harvested the weight of each of the unthinned 'Contender' fruit was only about 70% of the weight from the fruit thinned trees. The unthinned were also about a week later in ripening. The unthinned tree produced 263 fruit versus an average of 127 on the thinned tree. Though the unthinned tree produced more fruit and total weight, the fruit was of lower quality. In 'PF25' there was not much difference in weight and ripening. However, the unthinned tree produced 299 fruit while the thinned trees averaged 87. This could possibly suggest that 'PF25' is better at carrying a large fruit load.
- Although this project got a one year extension it is very difficult to get meaningful data on tree fruits in a three year period.

Contact Person

Patrick O'Malley, omall@iastate.edu, 319-337-2145

Additional Information

See attached plot plan and harvest record. See also attached pictures of trees. First picture is peach trees in bloom May 10, 2013. Second picture is Asian pear preparing to bloom on same date. Next pictures are peach trees with fruit at or near ripe stage on August 8, 2013. Last picture is Asian pear tree on same date about a month before ripening.

See: Iowa State Research Farms report on Peach and Pear Project at:
http://www.ag.iastate.edu/farms/2013/hort/PeachPearCultivar.pdf

See also attached.

Peach and Pear Cultivar Trial

RFR-A1348

Patrick O'Malley, extension commercial horticulture field specialist
Nick Howell, farm superintendent

Introduction

As local food production has increased in Iowa, there is renewed interest in tree fruit such as peach and pear. The purpose of this multi-year study is to compare the performance of peach and pear cultivars under soil and environmental conditions at the Horticulture Research Station, Ames, Iowa.

Materials and Methods

On May 11, 2011, 72 peach and pear trees were planted at the ISU Horticulture Research Station (HRS). Unless otherwise noted, each cultivar had five trees. There were five peach cultivars, five Asian pear, three European pear plus three additional European pear cultivars that only had a combined seven trees.

Trees were pruned in March 2012 and 2013. For all three years the orchard was weeded and sprayed for insect and disease control, and wire cages were put on for protection from rabbits. On May 22, 2013, 58 additional trees were planted bringing the total to 130. These consisted of two peach cultivars, seven Asian pears, two European pears, plus three trees of another European pear. See attached plot plan for the project, which shows name and placement of each of the cultivars. In June 2013, peach had fruit thinned.

Results and Discussion

It generally takes at least five years for pears to get a meaningful harvest. Peaches can have a harvest in the third year, but a more representative yield would be achieved in later years. The yield data in 2013 on peaches is preliminary, and future years should be recorded to get a more accurate measurement. Table 1 has cumulative total for all five trees of each peach cultivar. Contender had the most number of fruit and the highest total weight yield, but the second smallest fruit size. PF24C and PF25 had good fruit numbers, total weight yield, and fruit size. PF23 had the largest fruit size, which was probably due to the limited number of fruit on the tree.

Table 1. Peach yield for 2013.

Cultivar	Yield (kg)	Fruit (no.)	Average fruit size (kg)
Contender	75.55	773	.100
PF24C	67.22	633	.106
PF25	66.12	647	.102
Redhaven	45.15	493	.090
PF23	20.83	170	.123

Pear and Peach Planting
Horticulture Research and Demonstration Station

Row #										
1	13	13	13	13	13	14	14	14	14	14
2	15	15	15	15	15	16	16	16	16	16
3	17	17	17	17	17	12	12	12	12	12
4	8	8	8	8	8	9	9	9	9	9
5	10	10	10	10	10	11	11	11	11	11
6	4	4	4	4	4	5	5	5	5	5
7	6	6	6	6	6	7	7	7	7	7
8	1	1	2	2	2	3	3	3	3	3
9	18	18	18	18	18	20	20	20	20	20
10	19	19	19	19	19	21	21	21	21	21
11	22	22	22	22	22	23	23	23	23	23
12	24	24	24	24	24	25	25	25	25	25
13	26	26	26	26	26	27	27	27	27	27

Date Planted: 5/11/2011

Date Planted: 5/22/2013

European Pears
1) Shenandoah *
2) Sunrise **
3) Harrow Delight ***
4) Harrow Sweet ***
5) Moonglow *
6) Bartlett **
7) Comice ***
20) Kieffer **

Peaches
13) Contender *
14) Redhaven **
15) PF25 ***
16) PF23 ****
17) PF 24c ****
18) Intrepid **
19) Encore **

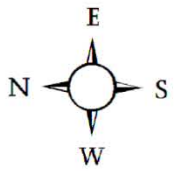
Asian Pears
8) Hosui *
9) Olympic *
10) Shinko *
11) Yoinashi *
12) Shinsui *
21) 20th Century *
22) Chojuro *
23) Shinseiki *
24) Kosui *
25) Atago *
26) Niitaka *
27) Yoinashi *

10 foot spacings within rows
16 foot spacings between rows

Pear Rootstocks
* Betulaefolia
** OHxF 97
*** OHxF 87

Peach Rootstocks
* Bailey
** Lovell
*** Tenn Nat VF281.1
**** Halford

Pear and Peach Planting
Horticulture Research Station



Row #										
1	13	13	13	13	13	14	14	14	14	14
2	15	15	15	15	15	16	16	16	16	16
3	17	17	17	17	17	12	12	12	12	12
4	8	8	8	8	8	9	9	9	9	9
5	10	10	10	10	10	11	11	11	11	11
6	4	4	4	4	4	5	5	5	5	5
7	6	6	6	6	6	7	7	7	7	7
8	1	1	2	2	2	3	3	3	3	3
9	18	18	18	18	18	20	20	20	20	20
10	19	19	19	19	19	21	21	21	21	21
11	22	22	22	22	22	23	23	23	23	23
12	24	24	24	24	24	25	25	25	25	25
13	26	26	26	26	26	27	27	27	27	27

Date Planted: 5/11/2011

Date Planted: 5/22/2013

European Pears
1) Shenandoah *
2) Sunrise **
3) Harrow Delight ***
4) Harrow Sweet ***
5) Moonglow *
6) Bartlett **
7) Comice ***
20) Kieffer **

Peaches
13) Contender *
14) Redhaven **
15) PF25 ***
16) PF23 ****
17) PF 24c ****
18) Intrepid **
19) Encore **

Asian Pears
8) Hosui *
9) Olympic *
10) Shinko *
11) Yoinashi *
12) Shinsui *
21) 20th Century *
22) Chojuro *
23) Shinseiki *
24) Kosui *
25) Atago *
26) Niitaka *
27) Yoinashi *

10 foot spacings within rows
16 foot spacings between rows

Pear Rootstocks
* Betulaefolia
** OHxF 97
*** OHxF 87

Peach Rootstocks
* Bailey
** Lovell
*** Tenn Nat VF281.1
**** Halford

Project Title: Connecting Growers and Schools through the Farm to School Program

Project Summary: Building a solid foundation is key to any successful endeavor. To increase markets for specialty crop producers, we need to increase the demand for their produce. Through increased awareness and opportunities, specialty crop producers can now add schools to their client list. As the State Coordinator for the Farm to School Program in Iowa, each year More and more people are asking how they can get healthier snacks and meals into their schools. Schools and parents alike are striving to feed children healthier foods and they are finding new ways to do this. With help from FoodCorp and Americorp members, passionate teachers, and parents, students are sampling kale chips and making stone soup in the classroom. To help create these opportunities we offered schools a variety of ways to get involved in Farm to School through initiatives such as "A is for Apple," "A Garden is the Way to Grow," and "Farm to School Month".

Project Approach: We continually see that consumers who purchase fresh, locally grown produce seek it again. Tomatoes trucked in from large production farms cannot compare to juicy garden tomatoes fresh from the vine that are locally sourced. Giving students the opportunity to participate in taste tests and to experience this difference for themselves is one of the main goals of our Farm to School projects. To accomplish that goal, some of the opportunities we offered are highlighted below:

A is for Apple: Classroom teachers were offered $30 to buy apples for their students from a local orchard. In addition to apples, they received supplies to aid them in their apple lesson such as the Apple Lovers Cookbook by Amy Traverso. Over 1700 students were impacted by this opportunity trying over 30 varieties of apples from more than 15 different apple orchards.

Farm to School Month: Most likely no one would be surprised about students trying potatoes, squash or peppers during Farm to School Month, but some Iowa students also got to experience beets, radishes, kale and kohlrabi. Many of these items were tried by students for the first time. These fruits and vegetables were served in many ways, including: part of health lessons in the classroom, taste tests in the cafeteria, served up as soup or a latke, offered as a healthy snack or even as part of a wellness booth during conferences. In one school's celebration they were given a quiz about the nutritional value of whole fruits compared to juices and 91% of the more than 100 respondents said they would now be more likely to consume more whole fruits than juice.

Farm to School Chapters: The Farm to School Program was established to link schools with Iowa farmers, provide them with fresh and minimally processed Iowa-grown food, and to encourage children to develop healthy eating habits through education and hands-on learning activities. The unique opportunity for schools to implement program plans that meet the goals of the Farm to School Program while fitting their school's individual needs is what makes this initiative so successful. New chapter creation allowed students to procure fruits and vegetables through a mock farmers market at one school, while others had specialty crop producers visit their school to showcase their food and how it is grown.

Future Farmers of America – Growing Together: Engaging FFA Chapters throughout the state with the Farm to School Program is paramount as many of these young students will be future leaders in horticulture. The program offered grow lights to twelve FFA Chapters willing to create or expand an existing garden and incorporate the produce into their school meals. This initiative required support of both a school administrator and food service director.

Buy Fresh Buy Local -- To increase awareness in the demand for specialty crops within our schools, ads were placed in three Buy Fresh Buy Local Chapters' annual publication. These ads encouraged fruit and vegetable growers to enroll in the Farm to School Directory through an ad stating "Wanted Fruits and Vegetables." While Buy Fresh Buy Local Chapters may offer non-specialty crop items; the Iowa Farm to School program and directory do not. The Farm to School Program as established in Iowa is solely for fresh and minimally processed Iowa-grown specialty crops.

Fruit and Vegetable Growers Annual Conference: Each year the Iowa Department of Agriculture and Land Stewardship has a presence at this event. In addition to Farm to School sessions, as a sponsor at these events, educational information is displayed and staff is available to answer specialty crop producers' questions.

Solicit new chapter applications – Farm to School is promoted throughout the year through many means including the Iowa Department of Education's Team Nutrition E-Newsletters, media opportunities (news articles) and speaking engagements (approx. 6/yr). These opportunities continue to engage more people in the various Farm to School Programs focused around the consumption of fresh fruits and vegetables.

The internationally acclaimed Iowa State Fair remains the largest event in Iowa with more than 1,000,000 visitors annually. What better way to celebrate Iowa agriculture than through this venue. In the last three years, we have offered activities such as "How is it Growing?" "Know your Iowa Food IQ and Apple Ski Ball. These events all featured Iowa horticulture and were promoted on the fair schedule. Students were given the opportunity to identify a selection of Iowa's specialty crops and then place them in the proper growing forum based on root crop, vine crop or tree fruit. These events were very popular and drew large crowds. In 2013, due to space issues, IDALS no longer had access to a "stage." Due to this unforeseen happening, we no longer offered the interactive "games," however consumers were still able to pick up one of many Farm to School tools offered such as brochures and harvest calendar magnets. More than 3,000 Fresh Fact Brochures (featuring pumpkins, apples, or asparagus) and Harvest Calendar magnets were provided.

Garden Tour – The Iowa Farm to School Program partners with state agencies and organizations around the state to promote Farm to School. In September 2013, Eat Greater Des Moines and the Urban Ambassadors sponsored a school garden tour in Des Moines. Three schools, all part of Farm to school chapters, hosted community members as they traveled from garden to garden to see first-hand these educational gardens and learned how they play a role in education.
The tour included stops at Cowles, Hubbell and Moulton Elementary schools.

Goals and Outcomes Achieved:
As already reflected in this report, schools are offering students the opportunity to try kale, kohlrabi, and rainbow carrots. Who knew? These are not typical offerings you would find included in most Iowa homes, let alone schools. This is the very reason countless people are working so hard to support the success of the Iowa Farm to School Program. We are not only raising awareness in nutritional value, but offering students the opportunity to try things they have never before heard of or seen. Along the way interest in growing their own food has dramatically increased.

We would love to report that every grower in the state has felt the financial effects of the Farm to School program through these various initiatives; however, that is not a reality at this time. The goal of the program was for growers to realize a 10% increase in sales. A Grower survey was sent to

growers listed in the directory or identified by a school as someone they had purchased from. Many schools tend to use the same growers. Some of this is a marketing issue and willingness by growers to connect with schools. Most growers reported seeing an increase in their school sales; less than 5% to as much as 25% of school-generated sales were reported. Growers that sold to schools through these initiatives indicated they would be very likely to sell to schools again. In addition, many indicated they would be willing to expand production to meet schools' needs.

In Iowa, there are pockets of dense farm to school activity. Not only are these areas of higher fruit and vegetable production but also heightened awareness of the benefits of supporting local growers. To look at the map of activity, you may consider the western part of the state a "food desert." An on-going focus and another goal of this grant, was to increase the activity in this part of the state by 10%. That goal was exceeded by 32% to a total increase of participation of 42%. More importantly, two new Farm to School Chapters were started in this region. Farm to School Chapters represent a group of seven or more individuals supporting farm to school work through an on-going project plan.

Beneficiaries:
Farm to School impact is felt statewide. The picture of Farm to School in Iowa is changing. Students are now involved in growing food, and not just your traditional carrots or tomatoes. They are growing and trying and liking things like kale and spinach. We have gone from replacing a few products shipped from anywhere they are produced to offering the same product grown locally to trying produce never before served in the confines of a school. We are witnessing increased production of some of these specialty crops. As the variety of produce being sought increases, so does the value to local growers. The diverse produce being sought allows growers to sometimes sell a spring and fall crop on the same ground.

Below are estimates of the impact of just a few Farm to School initiatives:

Initiative	Students impacted	Grower impact $	Benefits
Farm to School Month	7000	6300	Sales/consumption/awareness
A is for Apple	1700	1440	Sales/consumption/awareness
A Garden is the way to Grow	14000	Indirect	Awareness/consumption
FFA Growing Together	180 (growing)	Indirect	Awareness/consumption
Farm to School Chapters	2543	5450/indirect	Sales/consumption/awareness/education
State Fair Promotion	487	Indirect	Awareness
Fruit & Veg Conference	Indirect	Indirect	Awareness/sales

Lessons Learned:
While some aspects of getting locally grown specialty crops into the schools get easier, new challenges arise. Projects such as "Wrap your Own—Iowa Grown" offer school food service the opportunity to work with specialty crop growers and the chance to work with fresh foods; however, too many barriers exist in allowing them to incorporate these items into the school meal being offered. In addition, sourcing local produce can cost a bit more even though the quality is higher and there is less waste. Budgets and bidding processes do not take these factors into consideration.

Lastly, while it is believed these initiatives do have an indirect impact on all specialty crop producers as the awareness of these crops rises, they do not have a direct impact on all producers. Much of

this lies with the grower and their outreach and marketing as well as their willingness to work with schools. Engaging all growers would increase the supply we greatly need. However, this may not be a realistic goal.

New opportunities to involve more growers and growers of different specialty crops will continue to be sought. Lastly, timeliness is an issue. Getting information out sooner will aid in the ease of implementation of the various initiatives.

Contact:

Tammy Stotts,
Farm to School Coordinator
Iowa Department of Agriculture and Land Stewardship
502 E 9th Street
Des Moines, IA 50009
Tammy.stotts@iowaagriculture.gov
515-281-7657

Iowa Department of Agriculture and Land Stewardship
2014 IDALS Specialty Crop Block Grant Program
Final Report November 15, 2014

Purpose:

The purpose of this program was to increase the sales of fruits and vegetables at Iowa Farmers' Markets and the consumption of this specialty crop due to increased knowledge of both selection and preparation gained from nutrition education provided by the Iowa WIC Program and ISU Extension

Work Plan Status:

Work Plan:

Project Activity	Who	Timeline	Status
WIC Farmers' Market checks will be distributed to WIC participants in all 99 Iowa counties.	Local WIC agencies in Iowa	June, July, and August 2014	**Completed** Checks were distributed in June, July, and August. However, due to the late release of funding, the last group of checks was received the last week of August necessitating a revision of the survey date. In 2014, checks were distributed to participants in all 99 counties, and more participant categories were eligible.
During Nutrition Education in the WIC program, participants will receive a booklet entitled *Farmers' Market-local, fresh and in season-* Nutrition Matters, 2014 which not only provides recipes for produce available in Iowa Farmers' Markets but also focuses on method cooking such as stir frying that can be used with many different	Local WIC agencies in Iowa	June, July, August, and September 2014.	**Completed** Booklets were shipped to agencies and received for distribution in May 2014.

combinations of vegetables.			
ISU Extension's EFNEP and FNP staff will also focus on using fruits and vegetables from the Farmers' Market. Some will be present in WIC clinics and providing fruit and vegetable tastings, and some will be working with WIC participants in groups and in their homes. Their education will use the recipes from WIC and other recipes concentrating on how to make the most of Farmers' Market produce in their lessons.	ISU EFNEP and FNP Staff	June, July, and August 2014.	**Completed** On April 30, 2014, Jill Lange and Pat Hildebrand met with the local staff members of EFNEP and FNP to discuss the 2014 Farmers' Market Program. Staff members used the same Farmers' Market booklet and counseled WIC participants concerning selection, preparation, and storage of fruits and vegetables in communities where the programs are available.
Farmers' Market displays will be updated to include more month-specific produce following the Iowa Fruit and Vegetable Harvest Calendar distributed by the Iowa Department of Agriculture and Land Stewardship. Clinic tastings will focus on the selected produce.	Local WIC agencies in Iowa	June, July, August, and September 2014.	**Completed** Displays were distributed to agencies in May 2014.
WIC participants in Iowa now have access to HealtheKitchen as part of *wichealth.org where families can select the age level they are serving, the information they need such and selection or preparation, and the type of produce they have. The program will direct them to videos that	Local WIC agencies in Iowa	June, July, August, and September 2014.	**Completed** Many agencies brought computers to clinic sites to promote HealtheKitchen.

answer these questions. This will be promoted as an additional source of education to all participants especially those in counties not covered by EFNEP and FNP.			
WIC participants will answer two questions measuring their increase in consumption of fresh fruits and vegetables.	Iowa WIC Participants	September 2, 2014 to October 31, 2014.	**Completed** (Results below)
Results of the survey questions will be tabulated and sent to the Iowa Department of Agriculture and Land Stewardship.	IDALS and Iowa WIC	November 15, 2014	**Completed** Data also indicates an increase in redemption from 2013 to 2014: 73.6 % in 2013 and 82.9% in 2014. Data as of November 4, 2014.
Results will be shared with Iowa State University Extension staff.	ISU and Iowa WIC	November 15, 2014	**Completed**
A final analysis will be written and shared with WIC Staff.	Local WIC agencies and Iowa WIC	November 30, 2014	**Completed**

Results:

Due to the late release of funds, the final distribution of Farmers Market checks to agencies came the week of August 18, 2014. Therefore, the survey was delayed by 30 days according to the revised application.

1. Goal: : By October 30, 2014, 60% of WIC Participants will indicate on a questionnaire that they both recognize what is available at the Farmers' Market and have increased their consumption of fruits and vegetables. **Completed as scheduled**

2. Performance Measure: Beginning September 1, 2014 participants who have received WIC Farmers' Market checks will be asked 2 questions on an IWIN survey. **Completed as scheduled.**

Question Results:

1. After receiving information about how to recognize what fruits and vegetables are available at the Farmers' Market, I know what to buy for my family.

☐ Yes 1802 ☐ No 155

2. After receiving recipes, cooking instructions, and serving ideas for fruits and vegetables, my family is eating more of them at meals and snacks than they did before.

☐ Yes 1550 ☐ No 404

The results were tabulated on October 31, 2014.

Summary:

In a previous project completed in 2011, participants indicated that they did not use the Farmers' Market checks because they did not know how to recognize or how to prepare the produce available for purchase with the WIC Farmers' Market checks. In this 2014 project, the changes initiated including additional nutrition education and a partnership with Iowa State University Extension. Through the partnership with IDALS and the 2014 IDALS Specialty Crop Block Grant Program, funds were blended with WIC nutrition education funding to purchase support materials.

As a result of this project, its partnerships, and increased nutrition education, 92.1% of WIC participants indicated they knew what fruits and vegetables to purchase at the Farmer's Market and 79.3% indicated they were eating more fruits and vegetables as a result of receiving information.

Project Oversight:

The project was overseen by Patricia J. Hildebrand MS, RD, LD, Nutrition Education Coordinator with the Iowa WIC Program, and this report is being submitted by Holly Szcodronski, RD, LD, and Breastfeeding Coordinator.

H:/WIC/FNMP/2014 Promotion/Final Report/IDALS Grant App final report 2014