Iowa Department of Agriculture and Land Stewardship

State Point of Contact: Mike Bevins

USDA AMS Agreement Number: 12-25-B-0923

Final Performance Report

"Increasing the Competitiveness of Iowa Specialty Crops"

- Final Report – Iowa Department of Agriculture and Land Stewardship - *Implementing strategies to increase the use of WIC Farmers Market Nutrition Program and WIC Cash Value Vouchers*
- Final Report - Iowa Heartland Resource Conservation and Development – *Kicking up Fruits, Vegetables, and Other Specialty Crops in the Greater Des Moines Buy Fresh Buy Local Campaign*
- Final Report – Prairie Winds Resource Conservation and Development – *Nutritional Value, Taste Considerations, and Antioxidant Content of Iowa Grown Aronia Berry Food and Beverage Products*
- Final Report – Pathfinders Resource Conservation and Development – *Farm to Institutions: New Markets for SE Iowa Specialty Crop Producers*
- Final Report – Iowa State Horticultural Society – *Expanding the Educational Program and Marketing of the All-Iowa Horticulture Exposition*
- Final Report – Iowa Fruit and Vegetable Growers Association – *Conference: Sustaining our Environment, our Livelihoods, and the Future of our Industry*
- Final Report – Iowa Fruit and Vegetable Growers Association – *Increased Production and Marketability of Specialty Fruit Crops Grown in a High Tunnel Structure*
- Final Report – Northeast Region Iowa State Extension – *Northeast Iowa Specialty Crop Program*
- Final Report – Iowa Department of Agriculture and Land Stewardship – *Growing Opportunities for Specialty Crop Producers through the Farm to School Program*

February 21, 2013

Project Title: Implementing strategies to increase the use of WIC Farmers Market Nutrition Program and WIC Cash Value Vouchers.

Final Report

Project Summary

In 2010, the WIC Cash Value Voucher (WIC CVV) was added to the existing benefit package to provide fruit and vegetable vouchers for clients. That same year, a significant drop occurred in both the number of clients who picked up their WIC Farmers Market Nutrition Program (FMNP) vouchers and the number of vouchers redeemed by the clients who did pick up the vouchers. Although the new WIC CVV's could be redeemed at farmers market and farm stands as well as grocery stores, the vouchers redeemed at Farmers Markets and farm stands was extremely low and was insignificant compared to the loss of revenue in the FMNP.

The purpose of this project was to increase the overall use of WIC Farmers Market Nutrition Program and Cash Value Vouchers at farmers markets and farm stands. Both the unclaimed and unredeemed FMNP vouchers represent both wasted fruits and vegetables that did not improve the health of the clients and unrealized income for the producers.

Project Approach

The Iowa Department of Agriculture and Land Stewardship (IDALS) collaborated with the Iowa Department of Public Health (IDPH) throughout the grant period. Our initial efforts were to identify both the causes of the lower pick up/redemption rates of the FMNP vouchers and the low redemption rate of CVV's at farmers markets and farm stands. Both departments worked together to design and implement strategies to improve those rates.

A client survey was designed and conducted which identified the reason why clients do not use vouchers at farmers markets. The primary reasons given were 1) the hours of the market were not convenient and 2) adequate fruits and vegetables were purchased at the grocery store using cash value vouchers. No practical strategies were apparent to significantly alter these two obstacles so the project focused on informing clients of the local markets, identifying vendors who accepted vouchers, and motivating clients to make the extra effort to visit local markets and t use their FMNP vouchers and Cash Value Vouchers.

A variety of strategies were initiated during the first year of this project.

- Thirty six tabletop display units were purchased for agency and clinic offices throughout the state. Each display included colorful graphics showing people enjoying the farmers market, the times/dates/location of the market, and a featured fruit or vegetable which was changed out every month.
- Thirty one visits by farmers' market vendors were held at agency offices and clinics to introduce producers to clients, to highlight the advantages of shopping at farmers markets, to distribute recipes for market produce, and to provide samples of seasonal produce.

- An application for Smart phones was developed to provide easy access to times/dates/locations of Iowa Farmers Markets. The application noted whether FMNP vouchers and CVV's were accepted, along with market contact information and vendor listing and links. 12,000 Farmers Market posters were printed with Quick Response codes to allow clients and other market customers to download the application by simply holding their Smart phone up to the QR code on the poster.
- Client comments mentioned the FMNP/ WIC CVV signs displayed by the vendors were lost among all the sign clutter at the market, making it difficult to identify which vendors accepted vouchers. Aprons were purchased and mailed to approximately 800 certified vendors participating in the Farmers Market Nutrition Program. The aprons boldly displayed the message "I Love (red heart symbol) Fruit and Veggie Checks".

The Iowa Department of Public Health (IDPH) made significant contributions by designing, distributing, and tabulating the client survey. IDPH staff also worked with a graphic designer to develop the display size, layout, and graphics. Agency and clinic staff coordinated vendor visits and produce sampling at the voucher distribution sites.

During the second year the strategies shifted to a friendly competition among agencies and incentives for clients. Adult WIC FMNP clients in Iowa's twenty local WIC agencies that achieved certain goals received a product designed to promote the consumption of fresh fruits and vegetables purchased at their local farmers markets.

Achievable goals fell into three categories:

1. Agency with the largest percent CVVs issued to clients that were redeemed by certified FMNP vendors (% CVVs issued redeemed)
2. Agency with the greatest increase in the percent WIC FMNP checks issued to clients that were redeemed by farmers market vendors (compared to 2011)
3. Agency with the overall highest WIC FMNP check redemption (FMNP checks issued redeemed)

English and Spanish-version posters were created by IDALS staff and shipped to the local WIC agencies. Agencies in turn developed in-house campaigns to promote the usage of WIC CVVs at farmers markets. Promotional items purchased were cookbooks focused on nutritional information and the preparation of fresh produce and reusable, "I love my farmers market" imprinted, cloth shopping bags. Throughout the market season, periodic reminders about the competition were sent to the agencies. IDALS staff prepared and delivered to the local WIC agencies an end-of-season letter announcing the winners in each category and thanking them all for participating. The promotional items were then shipped to the winning agencies for distribution to the WIC clients.

Goals and Outcomes Achieved

This project tracked the changes in the rates of voucher pickup and redemption over the last two years. The historic average of the FMNP vouchers was calculated from program data from 1998 through 2009.

	Historic average	2010	Target	Results in 2011	Results in 2012	Average results

FMNP vouchers not picked up	12%	24%	15%	11.8%	24.5%	18.5%
FMNP vouchers redeemed	59.74%	51.4%	58.2%	52.4%	51.8%	52.1%
WIC CVV redeemed	NA	0.25%	3%	0.15%	.23%	.19%

The target of reducing the percentage of FMNP 'vouchers not picked up' from 24% to 15% was exceeded in 2011 and amounted to an additional $101,139 available for clients to purchase fresh fruits and vegetables from specialty crop producers. Unfortunately, in 2012 the 'vouchers not pick up' rose back up above the 15% target to 24.5% which amounted to potential lost purchases of $87,115.

The target of increasing FMNP voucher redemption to 58.2% was not met in either 2011 or 2012. The small increases in redemption rates for those two years amounted to an additional $11,958 used by clients to purchase fresh fruits and vegetables from specialty crop producers. If the target had been met, then $118,728 would have been spent by clients and earned by growers.

The target of increasing WIC Cash Value Vouchers was not met. All of the our efforts during the 2011 and 2012 seasons did not result in an increase in the redemptions of WICCVV.

Beneficiaries

The intended beneficiaries were women and children who consumed additional fruits and vegetables and thus improved their nutrition and overall health. Fruit and vegetable producers were also supposed to benefit as the increased distribution and use of vouchers would provide them increased sales and a larger customer base for future sales.

Lessons Learned

The drop in the percentage of 'vouchers not picked up' in 2011 followed by a significant increase in 2012 was unexpected and not consistent with our assumption that the increase in "vouchers not picked up" was attributed to the addition of CVV's to the WIC benefit package. Upon further reflection, voucher distribution was later than normal in 2012 and may been the cause for a high rate of unclaimed vouchers. The exact date that voucher distribution begins varies from year to year and is not recorded. In the future, distribution start dates will be compared to the percentage of 'vouchers not picked up' to see if a correlation becomes apparent.

Motivating clients to pick up FMNP vouchers and attend farmers markets to redeem their FMNP and WIV Cash Value Vouchers for fresh fruits and vegetables was not significantly impacted by our market promotional efforts of on-site displays, vendor visits and sampling, increased awareness of markets through a smart phone application, or increased visibility of participating producers. Friendly competition among agencies and client incentives also did not produce a significant increase in the redemption of vouchers at markets.

Behavioral changes are often long term and may take more than two years to become apparent. The percent of vouchers not picked up and the redemption rates of both FMNP and WIC cash value vouchers will continue to be reviewed annually in the hope of improved performance.

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Farmers Market Nutrition Program Survey 2-2-11

1. We would like to know why you did not use your Farmers Market Nutrition Program Checks this year. Check the reason or reasons you chose not to use them.

- ☐ There was not a market close to me -15
- ☐ The hours of the market did not fit my schedule-101
- ☐ I could not find the fruits & vegetables I want -18
- ☐ I do not have transportation-23
- ☐ My friends gave me fruits and vegetables-2
- ☐ I do not know how to cook fresh fruits & vegetables-1
- ☐ I had my own garden-8
- ☐ My family will not eat fruits and vegetables -1
- ☐ I had enough fruits and vegetables from using my cash value vouchers (CVV's) from WIC at the grocery store-30
- ☐ I did not know which stands took checks-10
- ☐ Other-Please list other reasons

2. If you could choose a day of the week, what day would work best for you to go to the Farmers Market?

- ☐ Monday-32
- ☐ Tuesday-28
- ☐ Wednesday-27
- ☐ Thursday-27
- ☐ Friday-28
- ☐ Saturday-90

3. If you could choose the hours that fit your schedule, what times would be best for you to visit your local Farmers Market?

- ☐ Mornings hours (8-12)-44
- ☐ Afternoon hours (1-4)-68
- ☐ Evening hours (3-6)-36
- ☐ Evening hours (4-7)-42

Farmers Market Nutrition Program Survey 2-2-11

4. What fruits and vegetables would you buy most often? Mark all that you would buy.

- ☐ Apples-126
- ☐ Asparagus-24
- ☐ Blueberries-31
- ☐ Broccoli-76
- ☐ Butternut squash-14
- ☐ Cantaloupe-58
- ☐ Carrots-81
- ☐ Cherries-34
- ☐ Corn-111
- ☐ Cucumbers-77
- ☐ Eggplant-9
- ☐ Green beans-77
- ☐ Green peas-41
- ☐ Grapes-83
- ☐ Herbs (parsley, cilantro)-22
- ☐ Lettuce-70
- ☐ Peppers-58
- ☐ Pumpkins-27
- ☐ Raspberries-35
- ☐ Spinach-21
- ☐ Strawberries-104
- ☐ Sweet potatoes/yams-38
- ☐ Tomatoes-101
- ☐ Watermelon-91
- ☐ Zucchini squash-31
- ☐ Other (Please list)-16

5. Do you know when different fruits and vegetables are available at the Farmers Market?

☐ Yes-67-(41%) ☐ No-96-(59%)

6. If you receive Farmers Market checks next year, and the WIC clinic provides you with recipes, market hours, and other serving tips, will you use them?

☐ Yes-153-(91%) ☐ No-16-(9%)

7. Did you shop in the Farmers Market in the county where you live?

☐ Yes-98-(57%) ☐ No-74- (43%)

8. Was there more product available at another location?

☐ Yes-33-(21%) ☐ No-125-(79%)

Feature of the Month

June Strawberries

Wash, Eat, & Enjoy!

Redeem Your

WIC Farmer's Market Checks and the WIC CVVs

(Cash Value Vouchers)

WIC

IDPH

Where is your farmer's market?

Location:

Time:

Feature of the Month **July**

Sweet Corn

& Green Beans

Redeem Your

WIC Farmers Market Checks and the WIC CVVs

(Cash Value Vouchers)

WIC

IDPH

Where is your farmers market?

Location:

Time:

Make a Change

Healthy Families
Eating Smart & Being Active

Fruit Salsa – **With food safety instructions bold and underlined. This version of the recipe is for PA use only.**

Yield: 4 servings, ½ cup each

Ingredients:
1 peach
1 apple
1 cup berries

Nutrition Facts
Serving Size 0.50 cup(s) (95g)

Amount Per Serving			
Calories 39		**Calories from Fat**	2
			% Daily Value
Total Fat 0.2g			0 %
Saturated Fat 0.0g			0 %
Trans Fat			
Cholesterol 0.0mg			0 %
Sodium 0.7mg			0 %
Total Carbohydrate 9.9g			3 %
Dietary Fiber 1.9g			8 %
Sugars 7.3g			
Protein 0.6g			
Vitamin A	2 %	Calcium	1 %
Vitamin C	41 %	Iron	1 %

Instructions:
1. **Wash hands and prepare salsa with gloved hands as it is a ready to eat food.**
2. Wash and chop peach, apple and berries into small pieces.
3. Stir to combine to make a fruit salsa.
4. Serve with baked chips, cinnamon chips, or graham crackers.
5. **Serve fruit salsa immediately or store in refrigerator. Transport fruit salsa in a cooler for best quality. Fruit salsa does not contain TCS ingredients (none of the fruits require time/temperature control for safety) but the quality of the fruit salsa will be better and it will keep longer if kept cold.**

Tips:
- Serve as a snack, appetizer, or dessert.
- Use a variety of favorite berries: strawberries, raspberries, blackberries, or blueberries.
- Can add 1 Tablespoon brown sugar if desired.

This material is funded by the Expanded Food and Nutrition Education Program, USDA's Food Stamp Program, and Iowa State University Extension.

The Food Stamp Program provides nutrition assistance to people with low income. It can help you buy nutritious food for a better diet. To find out more, contact your local Department of Human Services office or call toll-free 1-877-YES-FOOD.

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Vary Your Veggies...Focus on Fruits

Healthy Families
Eating Smart & Being Active

Salad in a Bag – **With food safety instructions bold and underlined. This version of the recipe is for PA use only.**

For July 2011 WIC: The ingredient we are focusing on them tasting is raw green beans added to a tossed lettuce salad.

To use this recipe for tastings, either prepare a larger bag and portion from it into small cups or plates or give each person a sandwich bag with ingredients and let them shake their own dressing and have their own individual salad bag.

Ingredients:
The quantities listed here are for one person, adjust accordingly for the anticipated number of people.
Approx. ¼ cup lettuce* per person
1 - 1/2 tablespoon raw green beans (cut into ½ inch pieces)
1 teaspoon shredded carrots
1 teaspoon chopped green, red or yellow peppers
½ -1 teaspoon salad dressing

***TCS ingredient**

Instructions:
1. Wash hands and prepare vegetables/salad with gloved hands as they are ready to eat foods.
2. Use a one gallon sized zip-lock bag to mix a large quantity of the salad or sandwich bags if the tasting will be done with each person having their own bag.
3. Place lettuce in bag(s).
4. Add cut raw green beans, shredded carrots, chopped peppers.
4. Add salad dressing.
5. Zip bag shut and shake to distribute the dressing over all the ingredients.
6. To serve: Use tongs or spoon to portion out salad and wear food service gloves.
7. For tastings: Either portion out approximately ¼ cup mixed salad from large bag or each person has their own salad from a small bag
8. Lettuce and leafy greens are TCS ingredients and need to be kept cold. Keep in refrigerator or cooler and only remove a small amount at a time to make salad bag for the tasting. Keep dressing in cooler or refrigerator when not being used.

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I
Fruit
&
Veggie
Checks!

USDA Specialty Crop Block Grant Program

Iowa Heartland Resource Conservation and Development

Final Performance Report

December 1, 2010 / revised and resubmitted 2/11/11

Project Title

Kicking Up Fruits, Vegetables, and Other Specialty Crops in the Greater Des Moines Buy Fresh Buy Local Program

Project Summary

Background: Since 2004, the Greater Des Moines Buy Fresh Buy Local (BFBL) campaign, through Drake University's Agricultural Law Center, has been connecting farmers, businesses, and consumers through a printed directory, on-line website, electronic newsletter, and a physical presence at area farmers' markets and a variety of community events. In 2009, Iowa Heartland Resource Conservation and Development, a local non-profit affiliated with the USDA Natural Resource Conservation Service, joined with the Agricultural Law Center with the goal of expanding the campaign to assist more small-scale farmers in growing and producing local food and more consumers in gaining access to locally grown food. The specific issue addressed by this project was the need to "ramp up" this effort and 1) bring more specialty crop farmers into the campaign particularly beginning and minority farmers, to 2) increase public awareness and demand, and to 3) build more linkages between producers, consumers, and businesses.

Motivation: The primary motivation of the project was the enormous opportunity (and threat) presented by a growing population in central Iowa with nearly 600,000 people in the six county Greater Des Moines area. This population provides an enormous sales opportunity for the increasing numbers of small-scale farmers producing local foods yet urban sprawl threatens these same farmers and their land with some of the most productive soil in the world. In addition, the need for consumer access to plentiful, fresh, healthy food has never been greater with increasing rates of obesity, diet-related ailments, and urban "food deserts" where access to healthy food is limited. Coupled with this is growing consumer awareness of the many benefits of fresh local food and the opportunities to build on that awareness.

Project Approach

Our specific goals were to 1) recruit more fruit, vegetable, and other specialty crop farmers into the BFBL campaign, 2) build the capacity of beginning and minority farmers and others to participate in BFBL, 3) raise public awareness of local fruit, vegetables, and other specialty crops through a variety of means and venues, and 4) build and create linkages among farmers, consumers, and businesses to expand business opportunities and healthy eating.

Summary of activities and tasks performed: First, two outstanding people were hired to fulfill the role of the "Fruit, Vegetable, and other Specialty Crops Program Manager" with additional support from another funder. Sue Honkamp who holds an MBA from the University of Iowa and has six years of food marketing experience was hired as Buy Fresh Buy Local Marketing Director. Lynn Fallon with Farm to School and Iowa Food Cooperative experience was hired as the Fruit, Vegetable, and Specialty Crop Business Facilitator.

To achieve the first goal of increasing producer and business members in the Greater Des Moines BFBL campaign, we began a strong producer and business recruitment effort for the 2010 BFBL Directory via letters, calls, farm visits, and visits with local farmers' market managers. Scholarships enabled participation by several farmers who were unable to afford membership or reluctant to spend scarce resources. Our results exceeded the targets we set in the grant application:

1. Eighty-five farms were recruited and joined the 2010-2011 Greater Des Moines Buy Fresh Buy Local Directory, a 35% increase from 63 farms the previous year.
2. Twenty-five businesses were recruited and joined, a 25% increase from 20 businesses the previous year.
3. Twenty-eight farmers' markets were included in the directory, a 40% increase from 20 the previous year.
4. Five ethnic farmers were included in the directory, a 400% increase from only one ethnic farmer the previous year. The new ethnic farmers are Hmong Laotian.
5. Five $1000 sponsors joined, a 67% increase from three the previous year.

With this significant BFBL membership increase, we doubled the size of the Greater Des Moines Buy Fresh Buy Local Directory to eight pages, up from four pages in previous years.

In addition, we published 48,000 copies of the directory up from 40,000 the previous year, a 20% increase. Of the 48,000 copies, 30,000 were inserted into Cityview, a monthly newspaper serving the Greater Des Moines area. Multiple copies were given to BFBL members, delivered to member restaurants and businesses, distributed at the Downtown Des Moines Farmers Market, and sent to a wide variety of partners such as the soil and water conservation districts and county supervisors.

Project staff visited many of the 28 farmers markets in the directory and distributed BFBL directories and talked with market managers and vendors and staffed a booth at Downtown Des Moines Farmers Market on 12 Saturday mornings. We also staffed a booth at the annual Iowa Farmers Market Managers Conference to talk with market managers and share directories.

Farmer and business member questionnaires were developed by Sue Honkamp and mailed to each member to learn more about them, their needs, opinions about the campaign, and how to best serve them. We received 52% of the surveys back and responded individually to each request for assistance. Sue worked with sixteen individual farmers and business owners that were interested in buying/selling from/to one-another and we received feedback that new relationships had been forged.

Each month, the on-line Buy Fresh Buy Local newsletter at www.buyfreshdrake.org. was published and sent to 2,500 BFBL on-line supporters with feature stories highlighting individual farms, special events related to specific farms and products, farmers markets, and events using locally-grown food.

Lynn Fallon, Fruit, Vegetable, and Specialty Crop Business Facilitator, met numerous times during the year with 12 beginning, socially-disadvantaged, and limited resource farmers to better understand their marketing and production needs and to connect them with resources to build their capacity for success. She also talked with another 21 farmers and provided resources and referrals.

Lynn led development of a "toolkit" of resources and individuals to identify and assist beginning, socially disadvantaged, and limited resource farmers and met with each of the following people to learn about the services they could offer:

John Baker, Beginning Farmer Center at Iowa State University
Cyndi Chen, Iowa Asian Alliance
Jaia Fischer, Jasper County Soil and Water Conservation District
Brian Gossling, USDA Farm Service Agency
Luke Gran, Practical Farmers of Iowa
Brad Harrison, Dallas County Soil and Water Conservation District
Gary Huber, Iowa Food Cooperative
Penny Brown Huber, Grow Your Small Market Farm
Jason Jones, Iowa Food Cooperative
Jay Jung, Marion County Soil and Water Conservation District
Hannah Lewis, National Center for Appropriate Technology
Norm McCoy, Iowa Valley Community College
Paul Miller, Polk County Soil and Water Conservation District
Nick Morrell, Warren County Soil and Water Conservation District
Denise O'Brien, Woman, Land, and Legacy
Amber Ramirez, New Iowan Center
Sherry Shafer, Mid-Iowa Small Business Development
Venus Vendoures-Walsh, New Iowan Center

Significant contributions and role of project partners: Our primary project partner was Matt Russell, State Food Policy Project Coordinator and Buy Fresh Buy Local Project Coordinator at the Drake University Agricultural Law Center. Assisting him and the entire project was Thomas Burkhead, Student Assistant. They were full project partners in every sense. Among the specific contributions they made were:

- Coordinated publication of 48,000 copies the Buy Fresh Buy Local Directory with Drake University's Marketing and Communication Department and on-line at http://www.law.drake.edu/centers/agLaw/docs/BFBLDirectory_1011.pdf
- Coordinated distribution of 30,000 copies of the BFBL Directory in Cityview newspaper, a local Des Moines area monthly
- Worked with the partnership on all aspects of planning, implementation, and assessment of the project including participating in the interview for the two employees
- Published 25 issues of the Buy Fresh Buy Local on-line newsletter at http://www.drake.edu/news/dbletter/buyfreshbuylocal/ that featured local producers,

fruits and vegetables in season, recipes, farmers' market events and other local food-related events, and other items of interest to local food consumers and BFBL members.

- Hosts and site coordinators for the Buy Fresh Buy Local Harvest Party in partnership with the team, particularly Sue Honkamp, BFBL Marketing Director, who did much of recruiting of local chefs, farm contributions, publicity, and other details.
- Coordinated the Buy Fresh Buy Local booth at the Downtown Des Moines Farmers Market on at least six weekends during the season and staffing for the booth.

The in-kind financial contribution of USDA NRCS totaled $3,500 including:

- $3,000 for the RC&D coordinator
- $300 travel
- $200 equipment

The financial contribution of Iowa Heartland RC&D included in-kind contributions totaling $500 including:

- $300 equipment
- $200 oversight provide by the 11 member non-profit board of directors

The financial contribution of our primary partner, the Drake University Agricultural Law Center included in-kind match totaling $15,022. This included:

- $4700 for the Buy Fresh Buy Local Directory
- $816 for directory placement in a local news weekly
- $1,359 for student workers promoting specialty crops at farmers markets
- $439 for BFBL pledge cards
- $647 BFBL stickers for specialty crop producers
- $161 Harvest party featuring local specialty crop producers
- $6,000 for the BFBL Project Coordinator
- $200 travel related to specialty crop producers
- $200 equipment
- $500 indirect costs for the BFBL campaign

Goals and Outcomes Achieved

Activities completed to achieve the performance goals and measurable outcomes were:

- Providing direct outreach to producers, businesses, restaurants, CSAs, co-ops, and others to recruit them to the BFBL campaign and listing in the directory
- Meeting and talking with farmers market managers and other farmers to gather names of beginning and minority farmers to recruit them to the campaign.
- Offering full and partial scholarships to producers with financial need so they could participate in the campaign
- Publishing 48,000 copies of the eight-page Greater Des Moines Buy Fresh Buy Local Directory and distributing them through a wide variety of venues and partners.
- Coordinating and publicizing a May - October series of 12 local foods preparation / farmer meet-up events in partnership with Kitchen Collage, a downtown Des Moines business, and 14 farmers. These events were attended by more than 145 people.
- Hosting a fall Harvest Party featuring food, goods, and services contributed by 31 BFBL members. The public event was attended by 164 people.

Comparing actual accomplishments with the specific measurable goals for the reporting period shows that each of the three measurable outcomes was exceeded:

Goal 1: "To increase the number of specialty crop producer members participating in the BFBL campaign from 58 to 70 by the end of 2010" was **exceeded with a total of 85 specialty crop members recruited for 2010.**

Goal 2: "To expand the number of BFBL members from 100 to 125" was **exceeded with a total of 128 BFBL members in 2010.**

Goal 3: "The expand the number of consumers taking the Buy Fresh Buy Local pledge from 1,400 to 2,000 was **exceeded with 2,104 consumers taking the BFBL pledge** to spend 10% of their weekly food dollars with participating BFBL members and use the directory to local BFBL farmers, restaurants, groceries, and other food businesses.

Beneficiaries

The groups and individuals that benefited from this project include:

- The 111 Buy Fresh Buy Local members who were listed in the BFBL Directory and whose names, products, and contact information reached thousands of central Iowa consumers.
- At least 40,000 central Iowa food consumers who received the Buy Fresh Buy Local Directory enabling them to easily connect with local fruit and vegetable producers. Even if they didn't all purchase local foods, their awareness was increased about the variety and availability of local foods, how to contact individual producers and what they produced, where to find farmers markets, and where to find local restaurants and other specialty businesses featuring local foods.
- The 2,104 people who took the BFBL pledge to spend 10% of their weekly food dollars with BFBL members, use the directory, and support the local food economy
- The 58 fruit, vegetable, and other specialty crop producers who were members of the BFBL campaign and listed in the directory (among the 111 total BFBL members).
- The 16 local producers, restaurants, grocers, and other food businesses who were connected with each other through their BFBL survey responses and subsequent follow-up to match their needs and local farm products.
- The approximately 145 people who attended the 12 special local foods preparation events from May through October sponsored in partnership with Kitchen Collage at their business in the East Village shopping district of Des Moines.
- The 14 farmers who contributed to the Kitchen Collage events their farm products including spring greens, asparagus, garlic, cheese, vegetables, eggs, jams and jellies, tomatoes, ice cream, beef, venison, lamb, goat, turkey, and root crops and built personal relationships with many of the participants and the business owner.
- The 164 people who attended the Harvest Party enjoying fresh local food prepared by local chefs and meeting local producers and learning more about local foods.
- The 31 farmers and farm families whose products were featured at the Harvest Party and who shared information about their farms and met consumers at the party.

Quantitative data that concerns the beneficiaries affected by the project's accomplishments will be available after our December 13 deadline for receipt of the 2010 BFBL surveys that were sent to all BFBL members and the 2,400 subscribers to the BFBL pledge. Based on early returns, we have some preliminary data:

- 73% of early respondents said they tried a new vegetable because of the campaign vs. 70% in the 2009 BFBL campaign.
- 53% said they tried a new fruit compared to 53% in the 2009 BFBL campaign.
- 64% said they purchased local fruit in 2010 vs. 56% in 2009.
- 70% said they purchased local vegetables in 2010 vs. 66% in 2009.

Lessoned Learned

Among the lessons learned by project staff as a result of completing this project were:

- the need for personal interaction to recruit new participants in the BFBL campaign
- the need for scholarships so beginning and minority farmers, in particular, could gain the benefits of the BFBL campaign
- the need to reach out to ethnic producers and smooth the way for participation,
- the eagerness of consumers to participate in local food-related events at the Kitchen Collage and the Harvest Party where we had to turn people away
- the labor intensiveness of working in local foods
- the lack of distribution networks for restaurants and other end users to get fresh, local fruits and vegetables as conveniently and easily as is provided by distributers such as SYSCO
- the willingness of partners such as Sodexo Food Services at Drake to partner with us for the Harvest Party and prepare locally-produced and sourced food
- the challenges of assuring that foods marketed as local foods are actually produced locally and keeping all the participants in our Buy Fresh Buy Local campaign in-the-loop about rules of participation

Financials

Financials are attached.

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Additional Information

Additional materials related to the project are attached including:

- Press release announcing IHRC&D / Drake partnership on BFBL
- BFBL "Why We Serve and How We Serve" flyer
- Greater Des Moines Buy Fresh Buy Local internet homepage
- BFBL pledge card
- Farmer and business member recruitment letters and materials
- Farmer and business member survey letters and surveys
- Farmer letter re self-certification, BFBL campaign integrity, and BFBL participation agreement regarding non-local foods
- Outreach letter from Lynn Fallon for producer capacity-building assistance
- Kitchen Collage / Buy Fresh Buy Local local food events
- Harvest Party publicity materials, program, and photographs
- 2011 Greater Des Moines Buy Fresh Buy Local Directory (2 copies)

Dear Valued Local Farmer,

Thank you for your commitment and dedication to providing Central Iowans with locally produced food and specialty crops. The Greater Des Moines Buy Fresh Buy Local campaign wants to make it easier for consumers, and even businesses, to find you and support your farm! We hope that you will join us by becoming a member of the 2010 Buy Fresh Buy Local campaign.

The Greater Des Moines Buy Fresh Buy Local (BFBL) campaign is a network of local farms, food businesses, and consumers who are committed to increasing the production and sales of fresh, local foods here in Central Iowa.

Members of the BFBL campaign will receive a wide range of services and individualized support to raise the awareness of their farms and generate increased demand for their products:

- Placement of your farm name and information in the BFBL directory that reaches up to 40,000 households and businesses
- Individual consultation to help craft a compelling story that conveys the essence of your farm
- Highlight farm events and activities in a weekly on-line BFBL newsletter that is sent to nearly 2,000 interested consumers
- Write feature stories about specific farms for the same weekly BFBL newsletter
- Identify sales opportunities with BFBL markets, restaurants, and institutions who are committed to buying local
- Develop and identify opportunities for farms to directly interact with customers
- Generate TV, radio, internet, and print media about BFBL and its farms
- Access to training opportunities with Iowa Heartland RC&D and the Iowa Food Co-op

In addition, membership also entitles each farm to a beautiful all-weather BFBL banner and a CD with the electronic version of the BFBL logo. These may be used everywhere you market your products.

The campaign receives support from its founding sponsor, the Drake Agricultural Law Center, and new in 2010, Iowa Heartland Resource Conservation and Development (RC&D). This year, Iowa Heartland RC&D has raised funds to add business and marketing support to the campaign.

Please join us in our endeavor to connect your farm products with consumers who value the delicious bounty of local foods. We're looking forward to working with you. The cost of membership is $50 and lasts for one year. We must have your registration by March 15, 2010 in order for you to be included in this year's directory. You can sign-up online at www.buyfreshdrake.org or contact us via phone at 271-4956 or email at bfbl@drake.edu.

Sincerely,

Matt Russell
Buy Fresh Buy Local
Campaign Coordinator

Sue Honkamp
Buy Fresh Buy Local
Marketing Director

Attachments: Farmer testimonial and examples of 2009 Print Media and Newsletter

Example of farmer testimonial

"Great campaign. Got our first call for asparagus from Gateway Market through this publication."

Example of print media

1,500 Iowans Sink Teeth Into 'Buy Fresh, Buy Local'

2009-9-17

DES MOINES, Iowa --

More than 1,500 central Iowans have taken the pledge to buy fresh and local every week.

The Drake University Agricultural Law center started the Buy Fresh, Buy Local campaign in 2004. Since then, their network of local farms, restaurants, and consumers has grown. Organizers said even during the fall and winter you can still buy local.

"We put a lot of emphasis on agriculture here in Iowa and we do that on a global basis, but we kind of forget about feeding ourselves," said Matt Russell, of the Buy Fresh Buy Local effort.

As the season starts to change, the hustle and bustle at local farmer's markets starts to slow down.

"Jams and jellies, they're going to be good all year. Processed meats, chickens don't stop laying eggs, you can get eggs all year, and some cheeses," said Russell.

The Buy Fresh Buy Local campaign is reminding people that no matter the season Iowa grown food is always in abundance.

"It's really all about the network, like bringing together the farmers and the businesses and the grocery stores and customers to build up a local food system here in greater Des Moines," said Russell.

"Tens of thousands of dollars every weekend are going back into rural countries surrounding Des Moines so really big economic impact when we develop these systems," said Russell.

The Iowa Food Co-op is another way that you can buy fresh and local year round as well.

Example of Weekly Buy Fresh Buy Local On-line Newsletter: circulation 1,750

How Sweet It Is Local Honey Has Arrived

2009-07-16

Local farmers and apiarists have been busy buzzing around their farms harvesting the first of this year's honey crop. The honey season begins in the spring when bees start harvesting the nectar from the first blooming plants such as dandelions and white clover. Bees harvest nectar from various flowering plants and bring the nectar back to the hive to deposit it into wax containers known as honey comb. The design of the bee hive and the movement of the bees begin to evaporate the water from the nectar, eventually creating a deliciously sweet substance known as honey.

Several BFBL members raise bees and harvest honey including, Blue Gate Farm, Spring Valley Honey Farms, Randol Honey Farm, and Prairie Song Apiary. Sean Skeehan from Blue Gate Farm, has 20 bee hives this year and expects to harvest between 600-800 pounds honey. Sean mentioned the honey he produces is referred to as wild flower honey because the nectar comes from a variety of flowering plants located throughout the farm. "Bees are an essential part of our farm. They play an important role in pollinating the fruits and vegetables we grown. In addition they provide us with a harvestable, high value crop, our customers seem to really enjoy."

Sean mentioned the honey harvested in the spring and early summer is lighter and color and a little sweeter whereas the honey harvested in the fall tends to be much darker in color. Blue Gate Farm sells both honeycomb and jarred honey at the Downtown Des Moines Farmer's Market.

Pat Randol of Randol Honey Farm is another BFBL member who raises bees and harvests honey. Pat mentioned she has 50 hives this year. In addition to honey comb and bottled honey, Pat makes creamed honey and a variety of flavored honeys. In 2008 Pat's Orange flavored honey won first prize at the Iowa State Fair.

As the local food movement continues to grow and consumers increasingly focus on sustainability, individuals have started raising their own bees. Hannah Bretz, a BFBL pledge, started her own bee operation this year with one hive and three pounds of bees. "I'm really passionate about sustainability, bees and the pollination they provide, are an integral part of my sustainable gardening." Hannah mentioned raising bees has been an exciting and interesting experience. "It has really surprised me how docile the bees are. As long as you don't provoke them, they aren't very aggressive."

Individuals interested in more information about bees and honey production can visit the Iowa Honey Producers website in addition to the websites of our members.

Dear Valued Local Food Business,

Thank you for your commitment and dedication to providing Central Iowans with locally produced food and specialty crops! The Greater Des Moines Buy Fresh Buy Local campaign wants to help you raise awareness of these local products at your business in order to generate increased demand. We hope that you will join us by becoming a member of the 2010 Buy Fresh Buy Local campaign.

The Greater Des Moines Buy Fresh Buy Local campaign is a network of local farms, food businesses, and consumers who are committed to increasing the production and sales of fresh, local foods here in Central Iowa.

Business members of the BFBL campaign will receive a wide range of services and individualized support from the BFBL Campaign Coordinator and Marketing Director:

- Placement of your business name and information in the BFBL directory that reaches up to 40,000 households
- Identify BFBL farmers who are interested in providing your business with local food and specialty crops
- Determine ways to highlight the presence of local foods and specialty crops on your shelves or in your menus
- Write feature stories about specific business members for the weekly on-line BFBL newsletter that is sent to nearly 2,000 interested consumers
- Include updates on business events and activities in the weekly BFBL newsletter
- Design opportunities for businesses to directly interact with both farms and consumers.
- Generate TV, radio, internet, and print media about BFBL and its business members

In addition, membership also entitles each business to a beautiful BFBL banner and a CD with the electronic version of the BFBL logo. These may be used everywhere you market your business.

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Please join us in our endeavor to connect local foods with consumers who value the delicious bounty of local foods. We are looking forward to working with you! The cost of membership is $100 and lasts for one year. We must have your registration by March 15 in order for you to be included in this year's directory. You can sign-up online at www.buyfreshdrake.org or contact us via phone at 271-4956 or email at bfbl@drake.edu.

Sincerely,

Matt Russell
Buy Fresh Buy Local
Campaign Coordinator

Sue Honkamp
Buy Fresh Buy Local
Marketing Director

Attachements: Examples of 2009 Print Media and Newsletter

Example of print media

1,500 Iowans Sink Teeth Into 'Buy Fresh, Buy Local'

2009-9-17

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As the season starts to change, the hustle and bustle at local farmer's markets starts to slow down.

"Jams and jellies, they're going to be good all year. Processed meats, chickens don't stop laying eggs, you can get eggs all year, and some cheeses," said Russell.

The Buy Fresh Buy Local campaign is reminding people that no matter the season Iowa grown food is always in abundance.

"It's really all about the network, like bringing together the farmers and the businesses and the grocery stores and customers to build up a local food system here in greater Des Moines," said Russell.

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The Iowa Food Co-op is another way that you can buy fresh and local year round as well.

Example of Weekly Buy Fresh Buy Local On-line Newsletter: circulation 1,750

Area Chefs Utilize BFBL Foods

2009-07-02

Iowa's rich soils produce phenomenal foods during the long days of summer. Many of the area's top chefs are taking advantage of this bounty as they craft their summer menus.

Chef Bill Overdyke of Centro and Django is creating a 3 course prix fix feature each week this summer incorporating local food. This week's featured ingredient is Sunstead Farm fennel. Chef Overdyke also regularly incorporates food from Cleverely Farms, Sheeder Farms, Cloverleaf Farms, LaQuercia, and Foxhollow Farm.

Overdyke's passion for local food goes back to his childhood days growing up on a farm. Overdyke says using local food is a no brainer and makes his job easier. "At the end of the day it's all about taste, and the quality from local food is amazing."

Chef Tag Grandgeorge of Le Jardin is another local chef utilizing local foods. Le Jardin, which recently celebrated its first anniversary, is a member of the Blue Gate Farm CSA. Each week the restaurant receives a box of produce from Blue Gate Farm and Chef Grandgeorge designs a feature incorporating the fresh ingredients. "I enjoy the challenge of opening the box and deciding what to do with this great, extremely fresh and diverse produce," says Grandgeorge.

This week Le Jardin served up a delicious veggie fettuccini pasta using Blue Gate Farm's eggplant, chives, basil, and bell peppers. For Grandgeorge using local foods is all about developing the relationship with the local farms. He mentioned he often visits the local farms to see how the growing season is going which allows him to design the menu around what's fresh and in season.

In addition to the weekly CSA feature, Le Jardin is hosting their second Annual Farmers Market Dinner which will take place on the evening of July 14th. The Farmers Market dinner will showcase over 20 local ingredients sourced from more than a dozen local farms, including Coyote Run, Frisian Farms, Emmack Farms, Reichert's Dairy Air and Rinehart's Family Farm.

The local food movement continues to grow in Greater Des Moines and restaurants are using fresh and local ingredients to create an even richer food scene. Overdyke says there has been nothing but positive feedback and comments from diners about putting local foods on the menus at Centro and Django.

2010–2011 DIRECTORY
GREATER DES MOINES

BUY FRESH BUY LOCAL®

IOWA CHAPTER • DRAKE UNIVERSITY

CAMPAIGN SPONSORS

Drake University Agricultural Law Center supports an array of educational and research initiatives on food policy, rural development and agricultural law. For more information visit *www.law.drake.edu/aglaw* or contact Neil Hamilton at *neil.hamilton@drake.edu.*

Iowa Heartland Resource Conservation and Development (RC&D) works to enhance rural areas and communities through partnerships for conservation and sustainable development. Leaders represent Dallas, Jasper, Madison, Marion, Polk and Warren counties. For more information contact 515-963-8654, ext. 4.

Campbell's Nutrition sells fresh Iowa grown produce and products and supports the Buy Fresh Buy Local campaign by selling their cool merchandise all year long.

www.campbellsnutrition.com

The Downtown Farmers Market proudly supports Iowa's farmers by providing them with an opportunity to sell locally grown food and specialty crops directly to consumers.

www.desmoinesfarmersmarket.com

Environmental Nutrition Solutions is a consulting firm dedicated to assuring all eaters have access to fresh, great-tasting, locally grown foods by leveraging partnerships and policies that cultivate healthy familys, farms and communities.

www.environmentalnutrition solutions.com

The Kitchen Collage will be hosting local farmers throughout the summer and demonstrating the best way to prepare their bounty of foods.

www.mykitchencollage.com

The Iowa Food Cooperative is a member-owned business that uses the Internet to facilitate the direct sale of Iowa foods and products to individuals and families in the Des Moines metro area.

www.iowafood.org

TAKE THE PLEDGE

JOIN THE CAMPAIGN

Take the Buy Fresh Buy Local (BFBL) pledge online.
Visit *www.buyfreshdrake.org* and click on the BFBL icon.
Sign up for the newsletter and check the Web site to stay connected to fresh, local food events in central Iowa.

PLEDGE TO ...

- **SPEND** 10 percent of my weekly food dollars with participating BFBL partners
- **USE** the directory to locate BFBL farms, restaurants, grocers and other food businesses
- **SUPPORT** the local economy by using my food dollars to strengthen central Iowa's food system
- **MAKE A DIFFERENCE** in my community by sharing my enthusiasm for fresh, local foods
- **CONSERVE** energy and protect the environment by purchasing local foods
- **LEAD** a healthy lifestyle by serving fresh and local foods to my family
- **ENJOY** the delicious flavors and diversity of fresh, local Iowa foods

BUY FRESH BUY LOCAL HARVEST PARTY

GET TO KNOW YOUR FARMER AND YOUR FOOD — SUNDAY, SEPTEMBER 19

The Greater Des Moines Buy Fresh Buy Local campaign will be hosting an event to introduce you to your farmer and your food. Join us on Sunday, September 19 from 4 to 6 p.m. at Drake University for a local foods extravaganza.

Celebrate the bounty of locally grown food with your local farmers, chefs and supportive businesses owners. Find out where and how your food is grown, and who grows it. Taste delicious local foods and find out the best ways to prepare and store them. Feast with old and new friends. For more information go to *www.buyfreshdrake.org* and look for further details in our weekly newsletter.

LOOK FOR THE LABEL AND TASTE THE DIFFERENCE

BUY FRESH BUY LOCAL®

Iowa

IOWA CHAPTER • DRAKE UNIVERSITY

SERVING THE COMMUNITY

The Greater Des Moines Buy Fresh Buy Local campaign is a network of local farms, food businesses and consumers who are committed to increasing the production and sale of fresh, local foods here in central Iowa. We strive to put more local foods on the table by getting the word out about availability and accessibility of local foods. We work to link local farms to consumers, either directly via farmers markets, farm stands, Community Supported Agriculture (CSAs) or buying clubs, or indirectly through local restaurants, markets and co-ops.

We do this by publishing this directory as well as an online newsletter, engaging and educating eaters, and promoting marketing outlets that help put fresh, local foods on central Iowa plates. Our campaign primarily serves the following nine counties: Boone, Dallas, Jasper, Madison, Marion, Marshall, Polk, Story, and Warren.

The Greater Des Moines Buy Fresh Buy Local campaign is a project of its founder, the Drake Agricultural Law Center, and, new in 2010, Iowa Heartland Resource Conservation and Development (RC&D). Additional support comes from our five sponsoring organizations: Campbell's Nutrition, Des Moines Downtown Farmers Market, Environmental Nutrition Solutions, Iowa Food Cooperative and Kitchen Collage.

When it comes to local foods, Greater Des Moines Buy Fresh Buy Local is here to serve the entire community.

Matt Russell
Campaign Coordinator
515-271-4956
matthew.russell@drake.edu

Sue Honkamp
Marketing Director
suehonkamp@gmail.com

APPLES AND BERRIES

DALLAS

Berry Fresh Farms
Greg Lewis
Adel
515-554-6698
glewis1422@hotmail.com
You-pick or we-pick strawberries, red and black raspberries, blackberries, various vegetables.
Waukee and Urbandale Farmers Markets.

Wills Family Orchard
Maury Wills
Adel
515-993-5151
info@willsfamilyorchard.com
www.willsfamilyorchard.com
Certified organic apples, processed organic apple products, other produce and you-pick pumpkins.
At the orchard, Centro Restaurant and Campbell's in season.

MADISON

Burr Oak Farm LLC
William C. Eggers
Winterset
515-462-1482
wce1482@yahoo.com
www.burroakfarm.com
Cherries, plums, blackberries, grapes, apricots, peaches, nectarines, pears, apples, wild plums and wild cherries.
Drake Neighborhood Farmers Market and Des Moines Downtown Farmers Market.

MARSHALL

Appleberry Farm
Robert Atha
Marshalltown
641-752-8443
applebob@mchsi.com
www.appleberryfarm.com
Apple orchard in city of Marshalltown.
Farm stand on Main Street in Marshalltown.

POLK

Iowa Orchard
Bryan Etchen
Urbandale
515-276-0852
appleman1@mchsi.com
www.iowaorchard.com
Apple orchard with seasonal fruits and vegetables, with value-added processing.
Farmstand and Farmers Markets: Des Moines Downtown Farmers Market, Valley Junction Farmers Market, Drake Neighborhood Farmers Market, Urbandale Farmers Market and Johnston Farmers Market.

STORY

Berry Patch Farm
Mike, Judy and Dean Henry
Nevada
515-382-5138
info@berrypatchfarm.com
www.berrypatchfarm.com
Strawberries, raspberries, currants, gooseberries, blueberries, apples and pumpkins. Pick-your-own or ready-picked.
Farmstand, Des Moines Downtown Farmers Market, Johnston Farmers Market, F2F and other CSAs.

Center Grove Orchard
Steve Black
Cambridge
515-383-4354
info@centergroveorchard.com
centergroveorchard.com
Retail farmers market including pick-your-own apples and pumpkins with agritainment.
On-farm retail store.

Storybook Orchard
Chaouki Younes
Story City
515-733-4474
storybkorchard@iowatelecom.net
www.storybookorchard.com
Apple orchard with at least 4,500 fruit trees.

HONEY

DALLAS

Spring Valley Honey Farms
Curt and Connie Bronnenberg
Perry
515-465-5939
cbronny823@aol.com
www.springvalleyhoneyfarms.com
Spring Valley Honey Farms is a second-generation, family run business managing 3,500 honeybee colonies for honey and beeswax production.
Contact the farm, Campbell's Nutrition, and some Des Moines area Dahl's and Hy-Vee stores.

MADISON

Randol Honey Farm
Tom and Pat Randol
Winterset
515-210-7445
Pat@RandolHoney.com
www.RandolHoney.com
Honey; flavored, creamed honeys; goat milk and honey soaps; lotion bars; and some eggs.
Creston Farmers Market, Valley Junction Farmers Market, Winterset Farmers Markets, Iowa Favorites store in Jordan Creek mall.

Soder Apiaries
Lawrence and Jennifer Soder
Saint Charles
515-462-4489
soderapiaries@msn.com
Local honey and organic produce.
Des Moines Downtown Farmers Market and Living History Farms Farmers Market.

SURROUNDING COUNTIES

LogChain Honey
Ann Garber
Allerton
641-873-4119
logchain@grm.net
www.logchain.com
LogChain Honey is located in south central Iowa and produces packaged honey.
Des Moines Farmers Market, Gateway Market, Log Chain Shop and Living History Farms Store.

Prairie Song Apiary
Charles Carpenter
David Tousain
Coon Rapids
712-683-5804
sdcarp@crmu.net
Honey products, beeswax candles, heritage apples, tart cherries, bittersweet.
Des Moines Downtown Farmers Market at Audubon County Family Farms Booth.

MEAT, EGGS & POULTRY

BOONE

Crooked Pine Farm
Greg and Christa Hartsook
Madrid
515-795-2727
hartsook@prairieinet.net
www.crookedpinefarm.com
We offer natural Cornish game hens, full-size broilers and turkeys.
Featured at metro and Ames restaurants, Wheatsfield Co-op and at the farm.

DALLAS

Anna's Place: Poultry Products
Ron Bartelt
Grimes
515-986-0565
ronbartelt@hotmail.com
Farm-raised chicken, ducks, turkeys and eggs that are not fed antibiotics.
Picket Fence, Baker's Pantry in Dallas Center, Johnston Farmers Market, Drake Neighborhood Farmers Market and Indianola Farmers Market.

Dalla Terra Ranch
Sharon Krause
West Des Moines
515-457-6362
sk@dallaterraranch.com
www.dallaterraranch.com
All-natural, grass-fed lamb.
Please contact us via e-mail or phone to order.

Hedgeapple Farm
Lorraine Bailey
Earlham
515-306-2463
hedgeapplefarm@iowatelecom.net
www.hedgeapplefarm.net
We specialize in grass-fed lamb, wool and Icelandic breeding stock.
Check out our Web site.

JASPER

Wild Rose Pastures
Ryan and Janice Marquardt
Reasnor
641-793-2444
wildrosepastures@gmail.com
www.wildrosepastures.com
We raise chicken, turkey, eggs and lamb on fresh grass pastures. No hormones or antibiotics used.
Iowa Food Cooperative, on farm, and Web site orders with deliveries to Des Moines and Ames.

MADISON

Henrichsen Farms
Ken Henrichsen, DVM
Winterset
515-462-4438
kjhenrichsen@L2speed.net
Grass-fed, all-natural beef seasonally available starting late summer.
Sold in quarters, halves and wholes.

Malabar Farm
Loren Olson and Doug Mortimer
St. Charles
641-765-4356
mbrbelt@netins.net
Grass-fed beef available in bulk.

MARSHALL

LaVentosa Ranch
Carrie and Eugene Meyer
Clemons
641-485-2251
carrie.laventosa@gmail.com
Pasture-raised goat meat, chickens, turkeys and ducks.
Des Moines Downtown Farmers Market, State Center Farmers Market, Iowa Food Co-op and Marshall County Market.

POLK

Ebersole Cattle Co.
Shanen Ebersole
Kellerton
515-971-8462
ebersolecattleco@yahoo.com
www.ebersolecattleco.com
A small family ranch raising kids; cattle; horses; and happy, healthy beef.
Beef is available at the ranch and at a monthly CSA drop at Easter Lake in Des Moines.

Griffieon Family Farm
LaVon Griffeon
Ankeny
515-964-0876
IowaFarmFresh@aol.com
www.iowafarmfresh.net
Naturally raised beef, pork, lamb, chicken and turkey.
Ankeny Farmers Market, Iowa Food Cooperative, on-farm store, The Foodshed.

The Corys at Prairie Hill Farm
Tom and Mary Cory
Elkhart
515-367-2000
tmc007@iowatelecom.net
Lamb, goat, grass-finished beef. Eggs and pasture-raised chicken.
Des Moines Downtown Farmers Market and at the farm.

STORY

Lee Farms
David Lee
Cambridge
515-291-8873
cocobean1@iowatelecom.net
Home-raised, hormone-free beef. Range-free eggs, farm-raised broilers.
Lee Farms, Cambridge.

Wirth Farms
Doug Wirth
Ames
515-979-3938
wirthdoug@yahoo.com
Antibiotic-free, naturally raised lamb. Also have access to pork and beef via partnership.
Iowa Food Cooperative Web site or contact the farm.

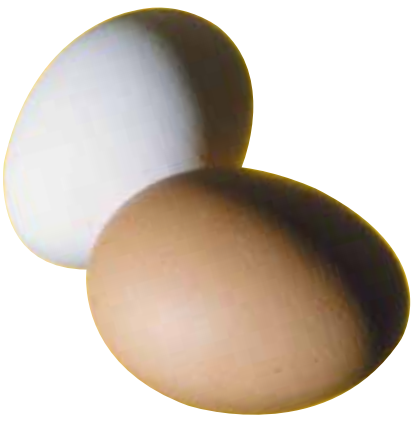
SURROUNDING COUNTIES

Audubon County Family Farms
Cindy Madsen
Audubon
712-563-3044
vcmadsen@iowatelecom.net
Natural pork, chicken and eggs sustainably raised without antibiotics.
Des Moines Downtown Farmers Market or buy direct at the farm. Contact us for Ames deliveries.

Bur Oaks Inc
Judy Gergen
Fertile
877-252-2081
sales@venisonsteaks.com
www.venisonsteaks.com
From pasture to plate Red Deer (Red Stag) Venison — USDA
Web site or Bur Oaks Farm.

Harvest Barn Marketplace
Jason and Amy Boyer
Osceola
641-342-4039
jaboyer@iowatelecom.net
www.harvestbarnmarketplace.com
All-natural, no antibiotics or growth hormones administered. Respectfully and humanely pasture-raised beef and pork.
Harvest Barn Marketplace, Des Moines Downtown Farmers Market and online.

Sheeder Brothers Farms
Justin Sheeder
Guthrie Center
515-490-8488
sheederbrothers@yahoo.com
All-natural beef, pork and chicken.



DAIRY

BOONE

Northern Prairie Chevre LLC
Connie Lawrance, Kathy Larson and Wendy Mickle
Woodward
515-438-4022
goatmom@netins.net
www.northernprairiechevre.com
Farmstead, artisan goat cheese company. On-farm store, events, wholesale or retail.
Des Moines Downtown Farmers Market, Gateway Market, Campbell's, Wheatsfield Co-op, area restaurants, direct or Web site.

DALLAS

Picket Fence Creamery
Jeff and Jill Burkhart
Woodward
515-438-2697
jbmilk@netins.net
www.picketfencecreamery.net
Family dairy farm. Jersey cows on chemical-free pastures, on-site bottling plant and country store.
Contact the farm.

MARION

Reichert's Dairy Air
Lois Reichert
Knoxville
641-218-4296
lreichert@wildbluepella.org
www.reichertsdairyair.com
Award-winning farmstead. Goat cheese, fresh chevre, feta and robiola.
Des Moines Downtown Farmers Market, Gateway Market, Wheatsfield Co-op, New Pioneer Co-op, Ulrich's Meat Market and The Coffee Connection.

SURROUNDING COUNTIES

Frisian Farms Cheese
Mike and Jason Bandstra
Oskaloosa
641-780-1254
enjoyourcheese@frisianfarms.com
frisianfarmscheese.com
Farmstead gouda cheese.
Gateway Market, Des Moines Downtown Farmers Market, and select Dahl's and Hy-Vee grocery stores.

VEGETABLES & PRODUCE

BOONE

Rinehart's Family Farm
Greg Rinehart
Boone
515-432-4480
grinehart@hughes.net
Our family raises various fresh fruits and vegetables.
Boone and Des Moines Downtown Farmers Markets and on our farm.

Twin Girls Garden
Paula Olson
Madrid
515-231-5900
twingirlsgarden@hotmail.com
Vegetables, apples, pears, jellies and jams, pork, eggs and chicken.
Farm stand, Ames Downtown Farmers Market, Woodward Farmers Market and Picket Fence Creamery.

Wilber's Northside Market
Scott Wilber
Boone
515-432-9038
scott@wilbersproduce.com
www.wilbersproduce.com
We grow a large variety of vegetables. Check our Facebook page for updates.
Boone Farmers Market, Farm Stand, Boone Hy-Vee, CSA and Iowa Food Co-op.

DALLAS

Deardorff Sweetcorn
Ron and Becky Deardorff
Adel
515-993-3156
rdears2u@aol.com
Locally grown sweetcorn picked fresh daily.
All metro area Dahl's Foods grocery stores.

Sunstead Farm
Khanh and Neil Hamilton
Waukee
515-987-2559
neil.hamilton@drake.edu
Heirloom tomatoes, beets, leeks, eggplant, flowers, specialty lettuce, okra, potatoes, chard and other vegetables.
Contact the farm.

The Gardens at Victory Acres/Grandma's House Chickens 'n More
Joseph and Jody Karge
Dallas Center
515-979-6514
grandmaschickens@gmail.com
www.2grandmashouse.com
Naturally grown vegetables, corn, asparagus, melons, strawberries and fruit, free-range chickens and eggs.
Woodward Farmers Market, Dallas Center Farmers Market and Farm Stand.

JASPER

Cleverley Farms
Larry Cleverley
Mingo
641-363-4299
lcleverley@aol.com
All produce is Certified Naturally Grown by third-party inspection. Specialty produce such as heirloom tomatoes and spring mix, Italian vegetables and herbs.
Des Moines Downtown Farmers Market, southwest corner of Second and Court, Gateway Markets and fine restaurants.

Emmack Family Farms
Mary Emmack
Colfax
515-994-2810
emmackowensdaphned@johndeere.com
Our family has been farming in Iowa for 150 years and providing fresh vegetables for 20 years.
Des Moines Downtown Farmers Market.

Thousand Generations Farm
Brian and Cheryl Ness
Newton
641-521-4804
mail@thousandgenerationsfarm.com
www.thousandgenerationsfarm.com
Limited number of CSA shares available. Vegetables, pork, chicken, eggs and daylilies.
Newton Farmers Market, CSA, on farm.

MADISON

Hensley's Farm
Will Hensley
Winterset
515-462-6869
hensleywill@msn.com
Brown eggs, tomatoes, potatoes, green beans, sweet corn, cabbage, lettuce and much more.
Johnston Farmers Market, Waukee Farmers Market and Winterset Farmers Market.

MARION

Blue Gate Farm
Jill Beebout and Sean Skeehan
Chariton
641-203-0758
mail@bluegatefarmfresh.com
www.bluegatefarmfresh.com
Certified Naturally Grown. Chemical-free produce, honey, pastured eggs and hand-spun yarn.
Des Moines Downtown Farmers Market.

Coyote Run Farm
Patrick Standley and Matt Russell
Lacona
515-689-8216
farm@coyote-run-farm.com
www.coyote-run-farm.com
Chemical-free heirloom produce; pastured eggs; and hormone-free grass- or grain-finished beef.
Des Moines Downtown Farmers Market; winter delivery eggs, beef and produce; garlic planting and other work parties on farm; Farm Crawl October 3.

MARSHALL

COMIDA (County of Marshall Investing in Diversified Agriculture)
Norman McCoy
Marshalltown
641-844-5785
norman.mccoy@iavalley.edu
www.facebook.com/pages/COMIDA-of-Marshall-County/114205746897
We launch farms from our campus's certified organic farmland. COMIDA is our cooperative.
Des Moines Downtown Farmers Market and in Marshalltown.

POLK

Yer Yang and Mai Vang
Des Moines
515-263-3608
Organic vegetables.
Ankeny Farmers Market and Downtown Farmers Market.

Mai Yang Lee
Des Moines
515-418-7790
Variety of vegetables and produce and fresh flowers.
Downtown Des Moines Farmers Market, Johnston Farmers Market and Living History Farms Farmers Market.

Grade A Grass
Jordan Clasen and Thomas Burkhead
Des Moines
515-554-4306
info@gradeagrass.com
www.gradeagrass.com
Growing Des Moines' finest organic wheatgrass, as well as organic sprouts and other specialty produce.
Gateway Market, Des Moines Downtown Farmers Market and direct order.

Growing Family Fun at Geisler Farms
Darrell and Malinda Geisler
Bondurant
515-964-2640
info@growingfamilyfun.com
www.growingfamilyfun.com
You-pick pumpkins and 10-acre corn maze.
On-farm stand at Geisler Farms. Open weekends September through October.

Lee Gardens
Xay and Jay Lee
Ankeny
515-664-2431
Specializing in unusual and oriental vegetables, cut and potted flowers, fruit and more.
Downtown Des Moines Farmers Market, Southridge Mall Market and Johnston Farmers Market.

River Terrace Gardens
Jim Dickson
Ankeny
515-964-7798
jrdicksn@hotmail.com
Specializing in melons, heirloom tomatoes, peppers and winter squash.
Contact the farm.

SalAmander Farms
Sondra Krueger Feldstein
Bondurant
515-957-0844
macsond@dwx.com
Pastured lamb, heirloom vegetable transplants and fresh vegetables.
On farm and Iowa Food Cooperative.

Turtle Farm
Angela Tedesco
Granger
515-278-4522
angela@turtle-farm.com
www.turtle-farm.com
Certified organic berries and vegetables on a 20-acre farm.
Farm stand at the farm on Saturday mornings at Highway 17, Granger.

Westrum Produce
Cindy Westrum
Stratford
515-230-4827
westrum@globalccs.net
Family vegetable farm of 20-acres of good Iowa produce.
Downtown Des Moines Farmers Market, and Valley Junction Farmers Market.

STORY

Black's Heritage Farms
Duane Black
Ames
515-292-1936
duane@duaneblack.com
www.blacksheritagefarms.com
Locally grown fresh vegetables. Tourist farm, pumpkin patch and hay rides.
Farm stand on farm, farmers markets, Iowa Food Co-op and online.

WARREN

Busy Bee Garden Center
Chelsey Soder
Indianola
515-408-5322
chelsey@busybgardencenter.com
Chemical-free produce, free-range eggs, annual and perennial plants, and local honey.
Des Moines Downtown Farmers Market, Valley Junction Farmers Market and Busy Bee Garden Center, Indianola.

Butcher Crick Farms, LLC
Jennie Smith
Carlisle
515-720-6969
jensmitty@gmail.com
Heirloom tomatoes, cucumber and carrots.
More than 10 local restaurants in Des Moines, Gateway Market and Des Moines Downtown Farmers Market.

Fresh
Kerri Rush
West Des Moines
515-440-4700
imarush@aol.com

www.freshcafeandmarket.com
Fresh wheatgrass, sunflower sprouts, herbs, and miscellaneous organic vegetables and fruits.
Fresh Café & Market, 1721 25th Street, Suite 110, West Des Moines 50266; Downtown Des Moines Farmers Market; Hy-Vee, Fleur Drive; Hy-Vee, Valley West; and Campbell's Nutrition.

Rudy's Roadside
Barbara Rudy
Indianola
515-205-5317
Strawberries; cherries; and a wide variety of vegetables, including green beans, tomatoes, eggplant, peppers, onions, potatoes, melons, sweet corn, and summer and winter squash. Some heirlooms.
Indianola Farmers Market Wednesday afternoons and Saturday mornings. We also have a stand at our home place.

Tarre De' Amore Farms
Jan and Steve Walters
Indianola
515-210-9138
jwalt43269@myway.com
www.thepumpkinshed.info
Fall seasonal produce (pumpkins, gourds, winter squash, ornamental corn and sunflowers).
Des Moines Downtown Farmers Market from mid-September through October.

SURROUNDING COUNTIES

Divine Word Farms
John Bascom
Osceola
641-414-2325
jbascom@wildblue.net
www.divinewordfarms.org
Organic Vegetables. Green growing methods and usage of energy. Natural and grass-fed beef.
Valley Junction Farmers Market, Dahl's on Ingersoll and at our farm southeast of Weldon.

Crooked Creek Venture
John Tharnish
Carroll
712-688-2861
riverfarm@iowatelecom.net
Many varietes of fruits and vegetables.
Downtown Des Moines Farmers Market.

North Skunk Sawmill and Market, Inc.
Bud and Carla Doane
Searsboro
641-593-6615
buddoane@northskunk.com
www.northskunk.com
Two high tunnels. Specializing in tomatoes and herbs.
Des Moines Downtown Farmers Market, Grinnel's Farmers Market and Grinnell Hy-Vee Store.

Wichhart's Produce
Russ and Becky Wichhart
Oskaloosa
641-673-4913
wichhartsproduce@mahaska.org
Fresh homegrown produce in season.
Downtown Des Moines Farmers Market, on North Fourth Street.

D and D Ag
Dennis and Deb Smith
Paton
515-968-4455
dennissmith56@gmail.com
30 varieties, certified organic heirloom tomatoes and other vegetables first of May through end of February.
Downtown Farmers Market, Gateway Market, Wheatsfield's, John's Natural Foods, Campbell's Nuturiton, some Dahl's and several restaurants.

Cricket's Gardens
Leora Laughery
Guthrie Center
641-757-0335
cricketsgardens@yahoo.com
Farm-fresh vegetables; fresh eggs; and home-raised, free-range broilers.
Des Moines Downtown Farmers Market and Johnston Farmers Market.

FLOWERS, WINE, AND SPECIALTY PRODUCTS

BOONE

Snus Hill Vineyard and Winery
Diane Larson
Madrid
515-795-3535
info@snushillwine.com
www.snushillwine.com
Iowa-produced wines with tastings in our gift shop, tasting room.
Winery and check our Web site for list of retailers.

DALLAS

Juan O'Sullivan's Gourmet Salsa Co.
Sean Sullivan, owner
Cumming
515-287-4424
info@juanosullivans.com
www.juanosullivans.com
Juan O'Sullivan's uses our home-grown chile, special seasonings and processes to make the best salsa and sauce products available.
Des Moines Downtown Farmers Market, Gateway Market and Iowa Favorites. Free local delivery from Web site.

MADISON

Homegrown Heaven/The Jelly Lady
Terri Sinclair
Cumming
515-996-9007
thejellylady@hotmail.com
Unique, prizewinning specialty jams and jellies, homemade with love and prayer by the "Jelly Lady" in Madison County.
Iowa Favorites Store at Jordan Creek mall. Or contact me; I am happy to deliver. 515-321-2743

Howell Greenhouse and Floral or Howell Pumpkin Patch
Fred and Cindy Howell
Cumming
515-981-0863
flowerfarmerfred@aol.com
howellfloral.com and howellpumpkinpatch.com
Asparagus, strawberries, fresh-cut flowers, dried flowers, bedding plants, annuals, perennials, shrubs, pumpkins and winter squash.
Des Moines Downtown Farmers Market and the store at our farm.

MARION

Grape Escape Vineyard and Winery
Rod Haworth
Pleasantville
515-848-3094
GrapeEscape@iowatelecom.net
GrapeEscapeIowa.com
Fine wines crafted from 100 percent Iowa-grown grapes.
Hy-Vee locations, Dahl's, Des Moines *Downtown Farmers Market, Valley Junction Farmers Market and the Winery.*

POLK

Jasper Winery
Jean Groben
Des Moines
515-282-9463
info@jasperwinery.com
jasperwinery.com
We specialize in making wine from grapes grown in Iowa.
Our winery, Gateway Market, Hy-Vee, Dahl's, Target and local wine shops.

Rosey Acres Vineyard and Winery
Tom and Karen Diltz
Runnells
515-265-3432
info@roseyacreswinery.com
www.roseyacreswinery.com
Iowa-grown grape wines produced locally.
Downtown Farmers Market, Valley Junction Farmers Market, Johnston Farmers Market, many local Hy-Vee and Dahl's stores, and some of the local Casey's.

WARREN

Two Saints Winery
Gary Edgington and Christine Carlton
St. Charles
641-396-2102
ccarlton@twosaintswinery.com
www.twosaintswinery.com
We grow Iowa grapes and produce very nice 100 percent Iowa wines.
You can purchase our wines at local Hy-Vee stores, Ingersol Wine & Spirits, and a few local restaurants.

SURROUNDING COUNTIES

Iowa Natural Premium Soy Oil
Colette Johnson
Clarion
515-851-1111
Colette@iowanatural.com
www.iowanatural.com
Iowa Natural Soy Oil is derived from non-GMO soybeans. Our oil is expeller-pressed, gluten-free and has half the saturated fat of other oils.
Ask for it at your favorite grocery store and at Iowa Food Cooperative, New City Market, Gateway Market, Campbell's Nutrition, Iowa Favorites and Heart of Iowa Marketplace.

FOOD COOPERATIVES, COMMUNITY SUPPORTED AGRICULTURE (CSA) AND BUYING CLUBS

DALLAS

Raccoon Forks Farms
Megan Sickels
Redfield
515-689-4796
msickels@iowarescare.com
Chemical-free produce and farm-fresh brown eggs.
Drake Neighborhood Farmers Market, Living History Farms Farmers Market and Plain Talk Books at East Sixth and Grand Avenue.

MARION

Picket Fence Farm
Troy and Amanda Galeazzi
Knoxville
641-891-9047
picketfencefarm@gmail.com
www.picketfenceproduce.blogspot.com
We are a small family run farm growing chemical free produce and flowers.
CSA memberships.

POLK

Iowa Food Cooperative
Des Moines
800-775-9815
info@iowafood.org
www.iowafood.org
The Iowa Food Cooperative uses the Internet to facilitate sales of a wide variety of products from more than 60 local farmers.
Pre-ordered products are picked up at retail space at Merle Hay Mall on pre-set delivery days.

The Homestead
Jason Jones and Eric Armbrecht
Pleasant Hill
515-957-3361
earmbrecht@thehomestead.org
www.thehomestead.org
Vegetable and fruit CSA on a Certified Naturally Grown farm.
At the Iowa Food Cooperative and our General Store on our farm during the CSA season.

WARREN

Shepherd Hills Farm
Bryan and Joan Samuell
New Virginia
515-975-0541
bandjsamuell@gmail.com
We are a small farm producing chemical-free vegetables and fruits and delivering to the metro area weekly.
Delivered to the Metro, Pleasant Hill and Ankeny areas.

SURROUNDING COUNTIES

with pick-up points in Greater Des Moines

Wallace Farms
Nick Wallace
Vinton
515-480-8763
nick.wallace@wallacefarms.com
www.wallacefarms.com
Products include grass-fed beef, pork and chicken, butter, wild fish; and seafood.
Join a buying club, pre-order online and pick up at a delivery location.

Grinnell Heritage Farm
Andrew and Melissa Dunham
Grinnell
641-236-4374
GrinnellHeritageFarm@gmail.com
www.GrinnellHeritageFarm.com
Fresh, local, certified organic produce, herbs and flowers from a farm you know.
Des Moines Downtown Farmers Market, Gateway Market, and through CSA shares delivered to the Des Moines area.

One Step at a Time Gardens
Jan Libbey and Tim Landgraf
Kanawha
641-495-6367
libland@peconet.net
www.ostgardens.com
Our farm membership program supplies chemical-free vegetables, herbs and pasture-raised chicken
Delivery to Kitchen Collage, East Village and St. Timothy's Episcopal Church, West Des Moines.

GROCERS

Campbell's Nutrition
Diane Lahodny
4040 University Ave.
Des Moines
515-277-6351

Campbell's Nutrition West
2749 100 St.
Urbandale
515-331-1390
diane@campbellsnutrition.com
www.campbellsnutrition.com
In business in Des Moines since 1939. Locally owned and family operated. Bringing the best of Iowa products to you.

Gateway Market and Café
Chef George Formaro
2002 Woodland Ave.
Des Moines
515-243-1754
feedback@gatewaymarket.com
www.gatewaymarket.com
It's all about food at Gateway Market, a new kind of good food market for central Iowa. Go ahead, live for food.

SPECIALTY BUSINESSES

Cyd's Catering
Cyd Koehn
5405 N.W. 78th Court
Johnston
515-274-0410
cydney@cateringbycyd.com
www.cateringbycyd.com
Cyd's Catering can specialize in sustainable weddings, luncheons and dinners with fresh in-season local products. Local gluten-free meals are also available for drop off.

Environmental Nutrition Solutions
Angie Tagtow
13464 N.E. 46th St.
Elkhart
515-669-8579
info@environmentalnutritionsolutions.com
www.environmentalnutritionsolutions.com
A consulting firm dedicated to leveraging partnerships and policies that cultivate healthy families, farms and communities.

Kitchen Collage
Teresa Adams-Tomka and Molly Eliason
403 E. Locust St.
Des Moines
515-270-8202
kitchencollage@qwestoffice.net
www.mykitchencollage.com
Born out of love of the kitchen, Kitchen Collage sells unique kitchen equipment and accessories.

Local Foods Connection
Laura Dowd
PO Box 2821
Iowa City
319-338-2010
localfoodsconnection@yahoo.com
www.localfoodsconnection.org
We purchase food from local earth-friendly farms and donate these goods to families who cannot afford such nutritious, fresh food.

Sodexo Campus Dining Services
Drake University
Dannie Crozier, General Manager
2507 University Ave.,
Olmsted Center
Des Moines
515-271-3175
dining@drake.edu
www.drakeudining.com
Focused on sustainability, diversity, wellness and fighting hunger. We source fresh local foods from farms helping us meet our goals.

Taste! To Go, Catering and Events
Andrea Williams
4700 University Ave.
Des Moines
515-277-8646
andrea@tastetogo.net
www.tastetogo.net
Taste! To Go, Catering and Events is a full-service catering company that emphasizes using fresh and seasonal ingredients.

Zanzibar's Coffee Adventure
Julie McGuire
2723 Ingersoll Ave.
Des Moines
515-244-7694
info@zanzibarscoffee.com
www.zanzibarscoffee.com
Serving specialty coffee roasted on-site, espresso beverages made with Cloverleaf Dairy products and offering a light breakfast menu featuring Sheeder Farms eggs.

RESTAURANTS

Art Center Restaurant
Lisa LaValle
4700 Grand Ave.
Des Moines
515-271-0332
www.desmoinesartcenter.org
Homemade soups, salads, sandwiches, pastas and exquisite desserts featuring fresh, local produce in season. Wine, beer and cocktails. Poolside patio dining. Private parties available.

Aunt Maude's
Steve Heller, chef;
Dave Hilgendorf, GM;
Patt Breen, owner
547 Main St.
Ames
515-233-4136
auntmaudes@isunet.net
www.auntmaudesames.com
Full-service restaurant, seasonal menu, featuring fresh local foods whenever possible.

Azalea Restaurant and Lounge
Mike Hutchison, owner; Sean Wilson, chef
400 Walnut St.
Des Moines
515-288-9606
mike.hutchison@mchsi.com
www.azaleadsm.com
At Azalea, the theme of our menu is an original and diverse take on Southern cuisine through ingredients, recipes and techniques.

Centro
Chef George Formaro
1007 Locust St.
Des Moines
515-248-1780
management@centrodining.com
www.centrodining.com
This urban eatery specializes in serving delicious Italian-inspired food featuring fresh ingredients and masterful preparation by Chef George Formaro.

Chef's Kitchen/ Winston's Pub and Grille
Steve and Kristi Little
1903 Beaver Ave.
Des Moines
515-255-4411
chefskitchen1903@hotmail.com
www.chefskitchentogo.com
We provide a casual dining experience. Local and family owned. We grow our own tomatoes, peppers and herbs.

Des Moines Embassy Club
Michael LaValle
801 Grand Ave.
Des Moines
515-244-2582
f.mattox@embassyclub.com
www.embassyclub.com
Contemporary dining with tableside-prepared signature salads, entrees, desserts, and flambéed after-dinner drinks and coffees.

Django
Chef George Formaro
210 10th St.
Des Moines
515-288-0268
info@djangodesmoines.com
www.djangodesmoines.com
Django is a comfortable, brasserie-style restaurant offering everything you love about French cuisine without the attitude.

Gateway Market and Café
Chef George Formaro
2002 Woodland Ave.
Des Moines
515-243-1754
feedback@gatewaymarket.com
www.gatewaymarket.com
It's all about food at Gateway Market, a new kind of good food market for central Iowa. Go ahead, live for food.

Gateway Market and Café
520 Market St.
West Des Moines
515-343-5640

Jethro's BBQ
Blake Wenzel
3100 Forest Ave.
Des Moines
515-279-3300
www.jethrosdesmoines.com
Your Drake neighborhood sports bar voted best BBQ in Des Moines, featuring Iowa Farm Families pork.

Le Jardin
Tag Grandgeorge, chef/owner
841 42nd Street
Des Moines
515-943-1926
info@lejardindsm.com
www.lejardindsm.com
Le Jardin offers rustic, polished French cuisine, including omelets, salads, entrées, desserts, charcuterie and cheese menu, French wines, and European beers.

Lucca
Steve Logsdon
420 E. Locust St.
Des Moines
515-243-1115
luccarestaurant@gmail.com
www.luccarestaurant.net
Made-to-order lunch — pasta, salad and sandwiches. Dinner — simple, classic, Italian cuisine.

Mojos on 86th
Anthony Johnson, executive chef; Henry F. Alliger, operations manager
6163 NW 86th St.
Johnston
515-334-3699
mojos@mojoson86th.com (general),
catering@mojoson86th.com (catering)
www.mojoson86th.com
We take pride in partnering with local farms and businesses to bring fresh, quality ingredients right to your table.

Proof
Carly Groben
1301 Locust, Suite C
Des Moines
515-244-0655
proofrestaurant@gmail.com
www.proofrestaurant.com
Neighborhood eatery located in the Western Gateway. The menu showcases Mediterranean flavors, putting a modern twist on classic culinary technique. Enjoy mouth-watering cuisine and a picturesque view of the downtown sculpture park.

Raccoon River Brewing Company
Jeff Hunter
200 10th St.
Des Moines
515-362-5222
jreichart@ohospitality.com
www.racconbrew.com
Raccoon River Brewing Company is a restaurant and billiards hall featuring homemade brews and creative pub fare.

Sbrocco Restaurant & Wine Shop
Chef Andrew Meek
208 Court Ave.
Des Moines
515-282-3663
mark@sbroccowine.com
www.sbroccowine.com
Restaurant and wine shop serving contemporary American cuisine with an emphasis on using as many local Iowa products in the menu as possible.

Splash Seafood Bar and Grill
Bruce Gerleman
303 Locust St. #150
Des Moines
515-244-5686
teena@splash-seafood.com
www.splash-seafood.com
Five star restaurant featuring fresh seafood, expressed daily from Hawaii/other coastal ports, local meats, fresh local produce.

The Grand Piano Bistro
Sara Middleton, owner
506 E. Grand Ave.
Des Moines
515-243-2380
sara@thegrandpianobistro.com
www.thegrandpianobistro.com
A bistro and dueling piano bar open for lunch M–F from 11 a.m. to 2 p.m., dinner Wed–Sat from 5 p.m. to 10 p.m., with dueling shows nightly at 8:30.

FARMERS MARKETS

TUESDAY

Adel Farmers Market
June 15–September 28
4:30–7 p.m.
Harvey's Green House Garden
off Highway 169

Ames Farmers Market
May 6–October 28
2–7 p.m.
Main Street Station, 526 Main St.

Eastside Farmers Market
May 18–October 19
3–6 p.m.
3200 Delaware, south of Euclid

Johnston Farmers Market
May 25–October 5
3–7 p.m.
Johnston City Hall Parking Lot.
Merle Hay Road and N.W. 62nd Ave.

Knoxville Farmers Market
June 1–October 5
2:30–6 p.m.
West side of Courthouse square

Newton Farmers Market
June 1–October 5
4–6 p.m.
501 W. Third St. North, south of
Center for arts and artists

WEDNESDAY

Drake Neighborhood Farmers Market
June 2–September 29
4–7 p.m.
25th and University, parking lot
of First Christian Church

Four Mile Farmers Market
July 7–August 11
4–7 p.m.
Four Mile Community Center
3711 Easton Blvd.

Indianola Farmers Market
July 7–September 29
2–6 p.m.
Highway 92 at fairgrounds,
west gate

Marshalltown Farmers Market
May 5–October 27
4–6 p.m.
108 N. Second Ave.

Urbandale Farmers Market at Living History Farms
May 12–October 6
4–7 p.m.
Front lawn of LHF,
11121 Hickman Road

Waukee Farmers Market
June 2–September 29
4–7 p.m.
Triangle Park. Sixth Street
and Ashworth Drive

THURSDAY

Highland Park Farmers Market
May 20–October 21
4–7 p.m.
6th Avenue from Euclid to Douglas

Pella Farmers Market
May 6–October 21
3–6 p.m.
First Reformed Church parking lot,
603 Broadway St.

Perry Farmers Market
June 10–September 10
4–6 p.m.
First and Willis Avenue

Polk City Farmers Market
June 3–October 21
4:30–7:30 p.m.
Town Square

Valley Junction Farmers Market
May 6–September 30
4–8 p.m.
100-300 blocks of Fifth Street

FRIDAY

Norwalk Farmers Market
June 4–October 1
4–7 p.m.
In front of Dollar General store
1021 Sunset Drive/Highway 28

SATURDAY

Ames Farmers Market
May 1–October 30
7 a.m.–1p.m.
Main Street Station, 526 Main St.

Downtown Des Moines Farmers Market
May 1–October 30
7 a.m.–noon
Court Avenue

Indianola Farmers Market
June 5–October 30
8 a.m.–noon
Highway 92 at fairgrounds,
west gate

Knoxville Farmers Market
May 29–October 9
8 a.m.–noon
West side of Courthouse square

Madison County Farmers Market
May 15–October 2
7:30–11 a.m.
Winterset Town Square

Marshalltown Farmers Market
May 1–October 30
8–11 a.m.
108 North Second Ave.

Uptown Ankeny Farmers Market
May 15–September 25
8 a.m.–noon
Corner of S.W. Third and
S.W. Maple streets

West Glen Farmers Market
June 5–August 28
10 a.m.–2 p.m.
Avenue of the Arts in West Glen
Town Center, one block north of
Mills Civic Parkway

EXTENDED SEASON FARMERS MARKETS

Downtown Des Moines Winter Farmers Market (Fridays)
November 19 and December 17
10 a.m.–2 p.m.
Capital Square, 400 Locust St.

Downtown Des Moines Winter Farmers Market (Saturdays)
November 20 and December 18
9 a.m.–1 p.m.
Capital Square, 400 Locust St.

Drake Neighborhood Farmers Market
November 13
10 a.m.–1 p.m.
25th Street and University Avenue,
First Christian Church

CAMPAIGN SPONSORS

BUY FRESH BUY LOCAL
IOWA CHAPTER • DRAKE UNIVERSITY

ORGANIZED BY DRAKE UNIVERSITY THROUGH THE AGRICULTURAL LAW CENTER AND IOWA HEARTLAND RESOURCE CONSERVATION AND DEVELOPMENT WITH SPONSORSHIP BY KITCHEN COLLAGE, CAMPBELL'S NUTRITION, ENVIRONMENTAL NUTRITION SOLUTIONS, DOWNTOWN FARMERS MARKET, AND IOWA FOOD COOPERATIVE. ADDITIONAL FUNDS FOR THIS PROJECT WERE PROVIDED THROUGH THE SPECIALTY CROP BLOCK GRANT PROGRAM FROM THE IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP.

Campbell's Nutrition has a long standing commitment to Buying Fresh and Buying Local. During the Iowa growing season, a significant portion of our produce is from Iowa farmers that understand the value of earth friendly and sustainable agriculture. Our mission is to continually reduce the impact of our lifestyles on the earth we share by providing healthy living choices for our community. We have two locations in the metro, check our web site for store information. *www.campbellsnutrition.com*

The Downtown Farmers' Market is dedicated to creating opportunities for Iowa producers to sell directly to their customers and currently support more than 200 producers offering a variety of farm fresh foods from around the state. We are proud to sponsor the booth where you can take the Buy Fresh Buy Local pledge. Experience something fresh every Saturday at the Downtown Farmer's Market. For more information visit *www.desmoinesfarmersmarket.com*. Get market updates by becoming a fan *www.facebook.com/DowntownFarmersMarket*.

Environmental Nutrition Solutions is a consulting firm dedicated to ensuring access to fresh, great-tasting, locally grown foods by leveraging partnerships and policies that cultivate healthy families, farms and communities. Focused on promoting good health, vibrant communities and environmental stewardship, Environmental Nutrition Solutions works with health professionals and community leaders to build resilient and sustainable food systems. We are a proud supporter of the campaign by offering sponsorships for farmer members. More information at: *www.environmentalnutrition solutions.com.*

Kitchen Collage is proudly partnering with the Greater Des Moines Buy Fresh Buy Local campaign to support and promote the local agricultural scene. It provides a CSA pick-up location and cooking classes use local foods from farms and farmers' markets. Kitchen Collage offers the highest quality service and most extensive collection of culinary tools and tableware in Iowa. For more information, call 515-270-8202 or visit *www.mykitchencollage.com.*

The Iowa Food Cooperative unites Iowa producers and consumers to facilitate the direct sale of Iowa-grown food and other Iowa-made products. We value and cultivate farmer-consumer relationships, environmental stewardship, and enhanced rural sustainability. The Iowa Food Cooperative strives to be a business that is financially viable, environmentally sustainable and socially just. Log on to *www.iowafood.org* to meet our producers, shop the coop, and join today!

Drake UNIVERSITY

Iowa Heartland Resource Conservation & Development

FoodRoutes

SLOW FOOD DES MOINES

Mixed Sources
Product group from well-managed forests, controlled sources and recycled wood or fiber
www.fsc.org
FSC

DRAKE PRODUCTION TEAM: MATT RUSSELL, NEIL HAMILTON, SUE HONKAMP
GRAPHIC DESIGN: DRAKE MARKETING AND COMMUNICATIONS
PHOTOS BY DIANN EVANS AND NEIL HAMILTON
PRINTED USING SOY INKS

BUY FRESH BUY LOCAL®
IOWA CHAPTER • DRAKE UNIVERSITY

kitchen collage
430 East Locust Street
Des Moines, IA 50309
515-270-8202
www.mykitchencollage.com

Join Buy Fresh Buy Local and the Kitchen Collage for a summer filled with local farms and food! Buy Fresh Buy Local member farms will be sharing their stories and delicious harvest at the Kitchen Collage on nearly a dozen different Saturday's this spring, summer, and fall. Join us from 11AM-1PM on the dates below to meet our farmers, learn their stories, and taste the difference when buying fresh, locally grown food. These events are free!

May 29th	Scrumptious spring salads with Turtle Farm and Northern Prarie Chevre
June 5th	Homemade ice cream with Picket Fence Creamery
June 19th	Jam and jelly demonstration with the Berry Patch Farm
July 3rd	Red, White and Blue potato salads and popcorn with Emmack Family Farms
July 17th	Sweet corn and string beans with Reinhart's Family Farm
July 31st	Grass-fed versus grain-fed beef with Ebersole Cattle Co… plus learn how to buy a side of beef
August 14th	Tomatoes! with Butcher Crick farms
August 28th	The other meats: venison, lamb and goat with Bur Oak Venison and Wirth Farms
September 4th	The incredible egg: omelets and veggies with Coyote Run Farms
September 18th	Getting ready for fall: vegetable freezing and root crop storage with Grinnell Heritage Farms
October 2nd	Winter soups with One Step at a Time Gardens
October 30th	It's turkey time! with Wild Rose Pastures

Questions? Please contact Sue Honkamp, Buy Fresh Buy Local Marketing Director @ suehonkamp@gmail.com or 515.339.5552

BUY FRESH BUY LOCAL
IOWA CHAPTER • DRAKE UNIVERSITY

CONNECTING GREATER DES MOINES TO FARM-FRESH LOCAL FOOD

Buy Fresh Buy Local Harvest Party

"Get to know your farmer and your food"

Sunday, September 19th | 4-6PM
Drake University | Olmsted Center
Open to the Public

- Sample a mouthwatering array of chef creations from our local harvest! Food will be sourced from local farms and prepared by local chefs!
- Taste delicious Iowa wines!
- Learn how to get local food year-round in the Greater Des Moines area!
- Many raffle prizes will be given away!
- View *A Fork in the Road, The Time and the Place for Local Foods* an exhibition by Hilary Williams, visiting assistant professor of graphic design

For tickets, contact us at 271-4956 or buyfreshdrake.org
A $15 donation is suggested per ticket

Buy Fresh Buy Local Harvest Party brought to you by Drake University, Iowa Heartland Resource Conservation and Development, the Downtown Farmers Market, Campbell's Nutrition, the Iowa Food Cooperative, Environmental Nutrition Solutions, and the Kitchen Collage
This event is hosted by Sodexo Campus Dining Services at Drake.

THANK YOU to the following Buy Fresh Buy Local members for their generous donations

Anna's Place Poultry
Berry Patch Farm
Blue Gate Farm
Butcher Crick Farm
Coyote Run Farm
Cyd's Catering
Ebersole Cattle Co.
Frisian Farms Cheese
Grape Escape
Grinnell Heritage Farm
Hedgeapple Farms
Henrichsen Farms
Homegrown Heaven
One Step at a Time Gardens
Picket Fence Creamery
Rosey Acres Winery
Rinehart's Family Farm
Rudy's Roadside
SalAmander Farms
Splash Seafood Bar & Grill
Twin Girls Garden
Wills Family Orchard
Wirth Farm

THANK YOU to our patron donors for their $100 contribution

Coyote Run Farm
Debra Leonard
Denise Donald
Linda Appelgate
One Step at a Time Gardens
Sue Honkamp and Family
Drake Agricultural Law Center

Thank you to our generous sponsors!

Drake University

Iowa Heartland Resource Conservation & Development

Downtown Des Moines Farmers' Market

kitchen collage

Iowa Food Cooperative

Campbell's Nutrition

Environmental Nutrition Solutions
Cultivating an Ecological Approach to Food & Health
www.environmentalnutritionsolutions.com

THANK YOU to our host!
Sodexo Catering at Drake University

sodexo

www.buyfreshdrake.org

BUY FRESH BUY LOCAL
IOWA CHAPTER • DRAKE UNIVERSITY

Connecting Greater Des Moines To Farm-Fresh Local Food

Harvest Party

"Get to know your farmer and your food"

Sunday, September 19th
4-6PM
Drake University Olmsted Center

Welcome to the Buy Fresh Buy Local Harvest Party!

Thank you very much for your support of the Greater Des Moines Buy Fresh Buy Local Campaign. With your help the campaign continues to grow every year. We hope you will enjoy the outstanding food harvested and prepared by our Buy Fresh Buy Local members. Please try all eight tasting dishes and sample Iowa wines. Some of our members are also available at tables to talk about their farms and provide information on how to enjoy local food throughout the year.

After the Harvest Party, please head over to the Anderson Gallery to view *A Fork in the Road, The Time and the Place for Local Foods* an exhibition by Hilary Williams, visiting assistant professor of graphic design at Drake University.

Buy Fresh Buy Local
Harvest Party Small Plates Menu

Caprese skewers
with local heirloom tomatoes, fresh basil, & mozzarella
Sourced and prepared by Splash Restaurant featuring tomatoes from D and D Ag

Sampling of local heritage apples and artisan cheese
Apples - Wills Family Orchard featuring Freedom, Liberty, and Red Free varieties
Gouda - Frisian Farms Young, Mature, and Smoked Gouda

Fresh tomato salad
Tomatoes -Butcher Crick Farms
Prepared by Cyd's Catering

Vegetable Gratin with a variety of freshly harvested local vegetables
Carrots - Grinnell Heritage Farm,
Beans, Eggplant, Onions, Peppers, Tomatoes, Zucchini - Rinehart's Family Farm
Potatoes - Rudy's Roadside
Milk - Picket Fence Creamery
Eggs - Anna's Place Poultry
Prepared by Sodexo Catering at Drake University

Farm-fresh poultry salad with homemade dressing
Chickens - Anna's Place Poultry &
One Step at a Time Gardens
Eggs - Hedgeapple Farms
Prepared by Cyd's Catering

Meatloaf crafted from the finest local hormone-free beef
Ground beef - Coyote Run Farm, Ebersole Cattle Company, Henrichsen Farms
Eggs - Anna's Place Poultry
Prepared by Sodexo Catering at Drake University

Locally raised lamb
with a variety of hand-crafted specialty jellies
Lamb - Hedgeapple Farms, SalAmander Farms, Wirth Farms
Jellies - Blue Gate Farm, Homegrown Heaven, Twin Girls Garden
Prepared by Cyd's Catering

Homemade apple crisp with freshly made ice cream
Apples - The Berry Patch
Ice Cream - Picket Fence Creamery
Eggs - Anna's Place Poultry
Prepared by Sodexo Catering at Drake University

Wines
Rosey Acres Winery - Rising Sun, Cherry, Sweet Cheeks, Rosey Red

Grape Escape Winery - Simply Red, Midnight Run, Simply Blush, Wild Rose, Simply White, Kimball Creek, & Rileigh Red

Learn how to get local food year-round at these booths
CSA - The Homestead, One Step at a Time Gardens, Twin Girls Gardens
Food Cooperative - The Iowa Food Cooperative
Local Beef - Ebersole Cattle Co., Henrichsen Farms
Local Lamb - Hedgeapple Farms

Connecting Greater Des Moines to farm-fresh local food

WHY WE SERVE: Buy Fresh Buy Local is a campaign dedicated to connecting the Greater Des Moines community to local farm-fresh food as a means to supporting a healthier population, promoting greater economic growth, and protecting our natural resources.

HOW WE SERVE:

Our member farms and businesses

- Identify opportunities for increased sales of local foods to consumers
- Communicate member information and events with consumers
- Assist with marketing of member farms
- Gain community support for farmers
- Provide information, resources, and services to build capacity

Our consumers

- Communicate where to buy local foods
- Educate about the benefits of buying local foods
- Provide opportunities to engage in what's happening in local foods such as farm tours, local food dinners, field days, educational events, and movie premiers
- Reach via our website, directory, newsletter, Facebook, and Twitter

Our community

- Build and maintain connections in existing local food networks and partnerships in order to have an impact and voice on what is taking place within the community regarding local foods
- Conduct local food economic analysis to provide solid foundation for local foods work and determine what programs will have the greatest impact on the community

Serving Boone, Dallas, Jasper, Madison, Marion, Marshall, Polk, Story, & Warren counties

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The Greater Des Moines Buy Fresh Buy Local campaign is a joint project of Drake University and Iowa Heartland Resource Conservation and Development. The campaign is sponsored by Campbell's Nutrition, the Des Moines Downtown Farmers Market, Environmental Nutrition Solutions, the Iowa Food Cooperative, and the Kitchen Collage.

For additional information, please contact us at 515-271-4956 or bfbl@drake.edu

April 14, 2010

Dear Buy Fresh Buy Local Farmer,

Welcome to the 2010 Greater Des Moines Buy Fresh Buy Local campaign! This year is our shaping up to be our best year yet, with over 100 local farms and businesses participating.

Our Buy Fresh Buy Local directory is in the designer's hands and will be available in time for Memorial Day. With many more farms and businesses participating than last year, we will be doubling its size to an 8-page glossy directory. We will be distributing a record 48,000 copies this year, through Cityview newspaper, local farmers markets, local businesses, and a wide variety of county offices and federal legislators.

The Buy Fresh Buy Local team would like to learn more about your farm and how we can help to support it. The more we know about your farm, the more we will be able to provide you for your membership. For those of you who are hoping to establish new sales opportunities, improve your marketing, or seek business planning assistance, this is your chance! If not, please indulge us and fill this out anyway, there is so much more we would like to know.

Please take a few moments to fill out our farmer questionnaire. This information will not only help us to assist you, but it will also help us to build a better local foods network for the Greater Des Moines Buy Fresh Buy Local campaign. We have included an envelope and return postage to hopefully make it as easy as possible.

We look forward to working with you!

Sue Honkamp
Buy Fresh Buy Local Marketing Director
Email: suehonkamp@gmail.com
Phone: 515.271.4956 (office) & 515.339.5552 (cell)

Greater Des Moines Buy Fresh Buy Local
Farmer Questionnaire
2010

Farm Name: _____

Farm Contact: _____

Phone: _____

Email: _____

1. Have you previously participated in the Greater Des Moines Buy Fresh Buy Local Campaign? If so, how many years have you participated prior to 2010?

   Yes, __ years / No

2. What will be available from your farm this year? Please specify within each category. (i.e. chard and radishes instead of vegetables)

   _____
   _____
   _____

3. What production methods do you use? (i.e. organic, chemical-free, etc.)

   _____

4. Where will your products be available for purchase? Please specify all.

   a. Farmers Market(s):
      _____
      _____
   b. Farm Stand
   c. CSA
   d. Buying Club
   e. Website
   f. Phone orders
   g. Co-op
   h. Wholesale to other farmers or processors
   i. Market/Grocer:
      _____
      _____
   j. Restaurant:
      _____
      _____
   k. Institution:
      _____
      _____
   l. Other:
      _____
      _____

5. Are you interested in selling your products at any new channels or outlets this year? Yes / No

a. Would you like assistance from the BFBL campaign in making connections with other BFBL members who might be interested in buying your products?

   Yes / No

b. Is there a specific product you would like to sell, or are you interested in selling all products?

   All products / Specific product _____

c. Is there a certain time of year that you have excess product?

   Yes _____ / No

d. Where else would you like to sell your product?

   i. Farmers Market
   ii. Farm Stand
   iii. Direct sales to consumers
   iv. CSA
   v. Buying Club
   vi. Website
   vii. Co-op
   viii. Wholesale Market/Grocer
   ix. Restaurant
   x. Institution
   xi. Aggregator
   xii. Distributor
   xiii. Other: _____

6. Would you like assistance in crafting a compelling farm story? This could be used for marketing purposes, on the label of your product, as a stand-alone message at your farm stand, on your website, etc.

   Yes _____ / No

7. How much emphasis to you put on marketing your products as "local"? Do you use the Buy Fresh Buy Local logo wherever your market your products? If not, why? Would you be interested in assistance with creating specific signage for your farm?

   _____

   _____

8. Do you have any events or activities planned at your farm? Please specify.

   _____

   _____

9. Would you be interested in assistance with business planning in order to evaluate profitability?

Yes / No

10. Would you like assistance with determining pricing for your product?

    Yes / No

11. Do you plan to increase production on your farm over the next few years? Do you intend to sell at additional outlets or will you increase sales at existing outlets?

    _____

    _____

12. What types of questions do consumers ask about your farm?

    _____

    _____

13. Do you currently co-operate with any other farms to sell product or interact with consumers?

    _____

14. Do you know of any new and beginning farmers that could benefit from participation in the Buy Fresh Buy Local campaign?

    _____

15. Would you be interested in participating in a Buy Fresh Buy Local event this September that brings together all off our farms, businesses, and consumers? Would you be willing to provide food for this event?

    _____

16. What else can the Buy Fresh Buy Local campaign do to support you and your farm?

    _____

    _____

April 14, 2010

Dear Buy Fresh Buy Local Business,

Welcome to the 2010 Greater Des Moines Buy Fresh Buy Local campaign! This year is our shaping up to be our best year yet, with over 100 local farms and businesses participating.

Our Buy Fresh Buy Local directory is in the designer's hands and will be available in time for Memorial Day. With many more farms and businesses participating than last year, we will be doubling its size to an 8-page glossy directory. We will be distributing a record 48,000 copies this year, through Cityview newspaper, local farmers markets, local businesses, and a wide variety of county offices and federal legislators.

The Buy Fresh Buy Local team would like to learn more about your business and how we can help to support it. The more we know about your business, the more we will be able to provide you for your membership. For those of you who are hoping to establish new relationships with farmers, this is your chance! If not, please indulge us and fill this out anyway, there is so much more we would like to know.

Please take a few moments to fill out our business questionnaire. We have included an envelope and return postage to hopefully make it as easy as possible. If you would prefer to do this in person, I would be happy to schedule a time to meet you. This information will not only help us to assist you, but it will also help us to build a better local foods network for the Greater Des Moines Buy Fresh Buy Local campaign.

Sincerely,

Sue Honkamp
Buy Fresh Buy Local Marketing Director
Email: suehonkamp@gmail.com
Phone: 515.339.5552 (cell)

Greater Des Moines Buy Fresh Buy Local
Business Questionnaire
2010

Business Name: _____

Business Contact: _____

Phone: _____

Email: _____

1. Have you previously participated in the Greater Des Moines Buy Fresh Buy Local Campaign? If so, how many years have you participated prior to 2010?

   Yes, __ years / No

2. How long have you been purchasing locally grown foods and specialty crops for use in your restaurant or for sale in your store?

   _____ Years

3. What locally grown products or specialty crops do you sell?

   _____

   _____

4. Where do you source your locally grown products or specialty crops?

   a. Grow your own
   b. Farmers Market
   c. Direct from the farmer/farm
   d. CSA
   e. Buying Club
   f. Farm Website
   g. Co-op
   h. Other: _____

5. Are you interested in expanding your purchase and sale of locally grown food and specialty crops?

   Yes / No

   a. Would you like assistance from the BFBL campaign in making connections with other BFBL members who might be interested in selling you products?

      Yes / No

b. What types of foods do you wish to add to your menus/shelves? Please be specific so we can connect you with the right farms and opportunities. (i.e. berries, honey)

_____

6. Do you prominently advertise locally grown food and specialty crops on your menus or shelves? If not, why not?

_____

_____

7. Do you use the Buy Fresh Buy Local logo wherever your market locally grown food and specialty crops? If not, why not?

_____

_____

8. What are some of the challenges associated with buying local foods and specialty crops for use or sale at your business?

_____

_____

9. Do you have any events or activities planned this year that highlight local foods?

_____

_____

10. Would you be interested in participating in our BFBL event this September that brings together farms, businesses, and consumers? Would you be interested in developing the menu items and preparing food for the event?

_____

11. What else can the Buy Fresh Buy Local campaign do to support you and your business?

_____

_____

BUY FRESH BUY LOCAL®

IOWA CHAPTER • DRAKE UNIVERSITY

I PLEDGE TO **BUY FRESH, BUY LOCAL**

GOAL: Spend 10% of your weekly food dollars through BFBL members.

Please show your commitment to building the Greater Des Moines local food network.

I PLEDGE TO...

- **SPEND** 10% of my weekly food dollars with participating BFBL members
- **USE** the directory to locate BFBL farms, restaurants, grocers & other food businesses
- **SUPPORT** the local economy by using my food dollars to strengthen central Iowa's food system
- **MAKE A DIFFERENCE** in my community by sharing my enthusiasm for fresh, local foods
- **CONSERVE** energy and protect the environment by purchasing local foods
- **LEAD** a healthy lifestyle by serving fresh and local foods to my family
- **ENJOY** the delicious flavors and diversity of fresh, local Iowa foods

For more information on the Greater Des Moines Buy Fresh Buy Local Campaign, call Matt Russell, campaign coordinator, at the Drake University Agricultural Law Center, 515-271-4956 or e-mail *bfbl@drake.edu.*

LOOK FOR THE LABEL & TASTE THE DIFFERENCE!

Drake UNIVERSITY

Farmers' Market

Kitchen Collage

Environmental Nutrition Solutions

Campbells

Iowa Heartland

www.buyfreshdrake.org

I PLEDGE TO **BUY FRESH, BUY LOCAL**

Name _____

Address _____

City _____

State _____ **Zip** _____

Phone (____) _____

E-mail _____

Agricultural Law Center
The Law School
Drake University

MATT RUSSELL
State Food Policy Project Coordinator

FOR IMMEDIATE RELEASE

May 26, 2010

CONTACT: Tory Olson, 515-271-1834, tory.olson@drake.edu

IOWA HEARTLAND RC&D JOINS DRAKE IN LOCAL FOOD CAMPAIGN

Drake University is partnering with Iowa Heartland Resource Conservation and Development to expand the amount of healthy foods both grown on local farms and consumed in central Iowa. The campaign will roll out the 2010 directory this Saturday at the Downtown Farmers Market. Shoppers can stop by the Greater Des Moines Buy Fresh Buy Local booth to pick up a free directory and those who pledge to buy fresh, buy local will receive a refrigerator magnet.

"The Greater Des Moines Buy Fresh Buy Local Campaign started in 2004 as a way to link those who grow, sell and eat locally grown foods," said Neil Hamilton, director of the Drake University Agricultural Law Center.

"Bringing healthy, local food to central Iowa families is win-win for local farmers and consumers," said Keith Sparks, president of Iowa Heartland Resource Conservation and Development. "We're excited to be part of that effort."

The local food marketing campaign aims to get fresh, local food to consumers through a network of local farms, restaurants, food retailers and processors. The goal is to grow the number of residents, farms and businesses serving up locally grown foods in the nine-county area surrounding Des Moines.

"As with any successful effort, one goal is to continue to grow and innovate," Hamilton added. "We've expanded the campaign nearly every year, but 2010 represents our biggest leap yet. We are excited to have Iowa Heartland adding two people to work on the campaign to help farm and business members tell their stories."

Membership in Greater Des Moines BFBL includes 85 farms, a 35% increase from last year; 25 businesses, a 25% increase; and 28 farmers markets, a 40% increase. Five co-sponsoring members are providing additional support to the campaign: Kitchen Collage, Campbell's Nutrition, Iowa Food Cooperative, the Downtown Farmers Market, and Environmental Nutrition Solutions.

Look for events and activities with these co-sponsoring members throughout the year. Their support also includes scholarships for farm memberships and sponsoring the Harvest Party food celebration on September 19, at Drake University. The entire BFBL community will celebrate

2507 University Avenue, Des Moines, Iowa 50311
515.271.4956 *fax*: 515.271.2530
matthew.russell@drake.edu
www.law.drake.edu/aglaw

the bounty of locally grown food with local farmers, chefs and supportive business owners with delicious local foods.

During 2009, nearly 2,000 consumers signed a pledge to buy fresh, local foods every week during the growing season. Based on a survey of those who took the pledge, more than 60 percent of households spent $25 or more on local foods in a typical summer week.

The survey also found that 87 percent agreed that they are eating more fruits and vegetables because locally grown food tastes better. In addition, 96 percent said that their interest in local food comes from a desire to support local farmers.

These consumers said the Greater Des Moines Buy Fresh Buy Local campaign made it easier to find local foods. One way the campaign does this is through a weekly newsletter, which highlights various farms and businesses that support local foods and tells consumers what local food events are happening in the area and what's fresh each week during the growing season.

Join the campaign

People wanting more information can e-mail BFBL@drake.edu, call 515-271-4956 or visit www.buyfreshdrake.org. The Greater Des Moines Buy Fresh Buy Local campaign includes farmers from Polk, Boone, Dallas, Jasper, Madison, Marion, Story, Warren and surrounding counties.

In addition, Drake and Iowa Heartland RC&D will provide a range of Buy Fresh Buy Local services and promotional materials to assist member farms, restaurants, retailers and food processors. The campaign will help farms craft a compelling story to convey the essence of their farm and help businesses determine ways to highlight the presence of local foods on their shelves and in their menus. The campaign will also help link farms and businesses that are interested in supporting each other.

The Drake Agricultural Law Center is internationally recognized for providing opportunities to study how the legal system shapes our food system and influences the ability of the agricultural sector to produce, market, and utilize agricultural products. The Drake Law School supports an array of courses, publications, conferences, research initiatives and has created a certification program in food and agricultural law.

Iowa Heartland is a nonprofit partner of the USDA Natural Resources Conservation Service and serves Dallas, Jasper, Madison, Marion, Polk and Warren counties in central Iowa. Iowa Heartland's mission is to enhance rural areas and communities by facilitating grassroots efforts and partnerships for conservation and sustainable development.

For more information about Buy Fresh, Buy Local, contact Matt Russell at 515-689-8219 or bfbl@drake.edu.

-30-

IDALS Specialty Crop Block Grant Program
Final Report

Grant awarded to Prairie Winds Resource Conservation and Development Inc
255 Hwy 69 Suite2 Garner IA 50438
Entitled

Nutritional Value, Taste Considerations, and Antioxidant Content of Iowa Grown Aronia Berry Food and Beverage Products

November 24, 2010

Contact Person
Teresa Nicholson
255 Hwy 69 Suite 2
641-923-3606 ext 5

Funding provided by USDA via Iowa Department of Agriculture and Land Stewardship though a 2010 Specialty Crop Block grant

Nutritional Value, Taste Considerations, and Antioxidant Content of Iowa Grown Aronia Berry Food and Beverage Products

Project Summary

Aronia berries, while not yet popular in the marketplace, have great potential to be considered a functional food due to its high values of antioxidant compounds. Some have even gone as far as to consider the Aronia berry a "Super Fruit." While this term is not clearly defined, it is typically used as a marketing tool for fruits with known high levels of antioxidants. With all of the research being done recently on the health benefits of different berries, the question was raised "Could Aronia berries be considered in this category of functional foods?" Literature research suggests that Aronia berries contain many different antioxidant properties along with high levels of several different vitamins, but how do these values compare to other "Super Fruits" like blueberries? Also, do the antioxidant values in Iowa grown Aronia berries compare with those reported in previous research literature?

The purpose of the Aronia berry project is to analyze the Aronia berries for creditable nutrient content data. This information could be used in feasibility studies, marketing plans, advertising campaigns, and basic food science knowledge. The overall goal of this project is to compare Aronia berries composition and products to other berries and see if the Aronia berry has greater nutritional benefit. A second goal of the Aronia project is to use the berry in a variety of products common to fruits and evaluate the effect of processing on the phenolic compounds found in the Aronia berry

The motivation of this project was that a few Iowa producers of Aroniaberry producers were selling large quantities of bare rooted seedlings and cuttings to numerous small acreage owners, farmer's market vendors, and small farming operations across Iowa. Those new growers were buying 500 - 1000 plants and planting orchards of Aronia berry. The northern Iowa growers came to the RC&D asking for advice on which food products produced with Aroniaberries were best suited to commercial production and marketing. They wanted an option to selling their berries to the single largest producer in Iowa at wholesale prices. They were interested in marketing the 'super fruit' themselves and processing it locally into various products. These growers have three years to go until they harvest commercial quantities of their berries, during which time they will decide how to process and market the Aronia.

Project was not built on previously funded work.

Project Approach

A total of five different 'batches' of Viking Aronia berries were analyzed. Four of the 'batches' were obtained by the North Iowa Aronia group, labeled and placed in the freezer for storage. The 5th 'batch' was purchased from another farmer. All of the 'batches', were labeled and placed in the – 20 0 C freezer for storage.

One of the ‘batches’ contained smaller berries than the other ‘batches’. The berries were graded, and the smaller, lesser grade berries, made up the sample. The smaller berry size could affect the composition of the sample, which was shown in the analysis that has been completed.

First, a pulper in Dr. Wilson’s lab was used to prepare the berries for the use of jam production. The product from the pulper still contained skin and a few seeds. The consistency was similar to thick Cream of Wheat. This product could be used in jam making.

In the production of Aronia jam, recipes were obtained from an insert in the package of Sure Jell pectin used. Three jams were made and tested. Jam #1 and Jam #2 both contained 2 cups of berries, roughly chopped. The difference between two recipes was that Jam #1 used more sugar. Jam #2 was better perceived as it gave more of a balanced berry flavor. A third jam was made utilizing a pulping blade on the Breville juicer to obtain berry pulps to potentially improve texture.

A juicer was used to juice the whole berries, however in order to obtain a clear juice, further filtration was applied. After vacuum filtration of the juice, analysis was run for Brix, pH, titratable acidity (malic acid content) as well as GC headspace and HPLC analysis. In making juice for jelly, wine and syrup, 4 layers of cheesecloth overlapping in different directions removed most of the pulp in the juice. The remaining juice was run through a coffee filter to obtain a clear juice.

The Aronia berry jellies were made from the clear juice of the berries. The first recipe tested was found in the Sure Jell pectin package, which suggested 2 cups of juice to 2 cups of sugar. This recipe made a weak gel. Juice sweating (weeping) out of the jelly was observed as well. For an ideal gel, the product should contain approximately 65% sugar (FDA; USDA AMS). In order to get this ideal sugar content, it was calculated that 2 cups of Aronia berry juice needed 2 5/8 cups of sugar. Jelly A was made with this recipe. Another jelly (Jelly B) was made with 3 cups of sugar to increase sweetness and make easier measurement.

A series of juice blends were taste tested containing varied amounts of Aronia in combination with commercial blueberry, pomegranate, black cherry, Concord grape, white grape, and apple juices. While none of these juice blends were deemed palatable without large amounts of added sugar, these juice blends were considered when making products such as wines and syrups. Syrup recipe development started with a pomegranate syrup recipe found on www.foodnetwork.com. After comparison with other fruit syrups, a basic recipe of 2 cups of juice with ½ cup of sugar and ½ tablespoon of corn syrup. During the early preliminary recipe testing, we found that it is difficult to achieve the desire consistency due to the vast differences in cooking temperature and time. Later attempts included monitoring time and temperature of the syrup while removing samples to cool so the true consistency could be determined. Syrups were made with all Aronia juice, as well as a combination of Aronia and grape and Aronia and black cherry juices. 50:50 blends of Aronia and grape were made as well as 50:50, 75:25, and 62:38 Aronia: black cherry blends. Sugar content was also adjusted to market products and consumer preference.

We made several wines with the simple recipe, juice, sugar and yeast. There were 4 wines with different juice blends. The Brix and alcohol contents of all the wines were monitored and recorded through the fermentation. Wines were put into the cooler when their alcohol contents were higher than 11% to stop the fermentation. Wine #1 was made with Aronia berry juice, white table sugar - sucrose (enough to bring the Brix to about 22 %) and 1.27 g of dry Champaign yeast (activated with 104 °F water before adding to the mixture). Wine No.2 was made with a juice blend of 60% by volume of Aronia berry juice and 40% Concord grape juice, white sugar (about 148.5g enough to bring the Brix of the juice blend to 22% Brix) and dry Champaign yeast (activated in 104˚F water). Wine No.3 was made with a juice blend of 70% by volume of Aronia berry juice and 30% white grape juice, white table sugar (enough to bring the Brix of the juice blend to about 26%) and dry Champaign (activated in 104˚F). Wine No.4 was made with 60% Aronia berry juice by volume and 40% black cherry juice, white table sugar (enough to bring the Brix of juice blend to about 26%) and dry Champaign yeast (activated with 104˚F water). All the wines were very astringent and not palatable. They all had grassy odors. Wine No.2 (with Concord grape juice blend) and No.3 (with white grape juice blend) had the strongest grassy smell. In order to reduce the astringency, we chose to use gelatin as the fining agent. The gelatin (from LD Carlson Company) was obtained from the Heartland Homebrew supply in West Des Moines. The gelatin was added to wine No.2, No.3 and No.4 with a ratio of 1-teaspoon gelatin per 6 gallons of wine. After fining the wines for a week, they were racked. Additional homemade wine obtained from the North Iowa Aronia Group was analyzed for pH, volatile acidity, total acidity, free SO2 and total SO2, and alcohol content.

Using High Performance Liquid Chromatography (HPLC), berry, juice, jam, jelly, syrup and wine were analyzed for citric acid, malic acid, tartic acid, ferulic acid, epicatichin, caffeic acid, catechin, procyanidin, idaein. The standard compounds that were analyzed were based on availability of the pure compound and its stated significance to the overall phenolic acid content of the berry. Samples for HPLC were prepared by centrifuging the samples for 15 minutes at 12K g. The supernatants were then dissolved with the mobile phase in a 1:3 ratio by volume. The mobile phase was a mixture of 95% 0.1 M KH2PO4 and 5% acetonitrile in a 1:4 ratio by volume. The mixture was then filtered using a 45 μm filter into HPLC vials.

The SafTest method of analysis was also run the jam, jelly, and syrup products to determine free fatty acid content, aldehyde content, and peroxide value. However due to the low lipid content of the samples, results were too low to measure.

Goals and Outcomes Achieved

Both jams 1 and 2 had undesirable, gritty texture due to the skin and seeds of the berry. Jam 3 had a less gritty texture than the previous ones, however, the Breville juicer only ground the skins and seeds to a finer particle size instead of eliminating the skins and seeds. It was still too gritty to be consumed as a jam. Also after being stored in the fridge for couple weeks, the jam gelled and became more of a mix between a jam and a jelly in texture. In the future, using a commercial pulper to eliminate skins and seed may be a better option for making an Aronia jam. Of the jellies made, both Jelly A and Jelly B held a solid strong gel and had good flavor. However, it was determined that consumers might prefer Jelly B because it is sweeter. Our

favorite syrup was 1 ¼ cup Aronia juice, ¾ cup black cherry juice, 1 cup sugar and ½ Tbsp. corn syrup simmered for approx. 30 min after first boil.

An issue we encountered in making the juice blends was how to make Aronia berry the main component while concealing the astringency that makes it difficult to stand alone. The easiest way we found to reduce astringency was to add sugar.

In Aronia wine, the gelatin appeared to have a positive impact on reducing the astringency, but the flavor was not always improved by this addition. Continued aging of the wines as well as additional taste testing to increase the sugar content for a more palatable wine is recommended.

The headspace analysis of the pulp and juice using the Solid Phase Micro-extraction Gas Chromatography (SPME GC) did not return any substantial peaks, unless it was an older sample that was allowed to ferment, then Ethanol was present. The same was found when the injection size was doubled to 2mL injection at 1mL/minute.

The Analysis of the five different 'batches' of Aronia berries is shown in Table 1. As this table shows, the composition of the berries differed greatly. This can be most likely attributed to the different harvest time, unknown ages of the crop, storage conditions, as well as natural crop-to-crop variation (location and environment).

Table 1. Results of the analysis on Aronia berries

	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5
Brix	16.3	16.4	12.9	15.1	21.4
pH	3.5	3.53	3.91	3.49	3.33
Titratable acidity (g/L)	11.41	10.47	4.65	10.79	16.84
Sugar/acid ratio	14.3: 1	15.67: 1	26.46: 1	14.0: 1	12.72: 1
Tartaric acid (g/L)	3.7074	8.4681	15.7552	18.3699	5.4443
Malic Acid (g/L)	9.3696	10.062	3.5817	9.8224	11.8481
Lactic Acid (g/L)	-------	--------	--------	---------	7.0507
Acetic Acid (g/L)	-------	--------	0.8179	--------	--------
Succinic Acid (g/L)	1.4026	--------	2.7935	--------	0.9552
Citric Acid (g/L)	2.44E-01	5.38E-01	0.6984	0.542	--------

These values were similar to values found in Chokeberry (Aronia melanocarpa)-A Review on the Characteristic Components and Potential Health Effects written by Sabine E. Kulling and Harshadai M. Rawel, which contains published data on the composition of Aronia berries. The total amount of acids was found to be between 5 – 19 g/L. The pH of fresh pressed juice was found to be 3.3 – 3.9 pH. In fresh pressed juice L-Malic acid was found to have 9.0 g/L, Tartaric acid was not detected, Citric acid was 500 mg/L, Isocitric acid was 65 mg/L, Shikimic acid was 80 mg/L and Succinic acid was 1.5 g/L. This report also contained information about vitamins, phytochemicals, and different phenolic constituents including procyanidins, anthocyanins, and flavonols.

Comparing the pH, Brix, titratable acidity and sugar acid ratio, as shown in Table 1, three of the batches, Batch 1, 2 and 4, are fairly similar and are treated as the same in the product development phase of the project.

The results from pH, volatile acidity, total acidity, free SO2 and total SO2, and alcohol content analysis are shown in Table 2.

Table 2. Homemade Aronia Wine from participating farmer

pH	3.42
Volatile Acidity	0.51 g/L
Total Acidity	9.37 g/L
Free SO_2	6.40 ppm
Total SO_2	101.66 ppm
Alcohol content	11.4%
Sugar Level	< 0.2%

The HPLC analysis of the berries and juices used for the production of the non blended Aronia products can be found in Table 3.

Table 3: Summary of Phenolics in Aronia berry Products

Product	idaein mg/100g	procyanidin mg/100g	catechin mg/100g	caffeic acid mg/100g	epicatichin mg/100g	coumaric acid mg/100g
berry	313.73	78.63	0.39	24.07	6.84	1.35
juice run 1	0.00	0.00	14.10	0.65	4.06	1.23
juice run 2	0.00	59.61	0.05	1.09	4.84	1.11
jelly a	344.31	15.79	0.13	0.46	0.76	0.49
jelly b	339.35	15.27	0.16	0.58	0.46	0.34
syrup 1	331.65	100.79	0.06	1.00	0.00	2.18
	ferulic acid mg/100g	tartic acid mg/100g	malic acid mg/100g	citric acid mg/100g	Total mg/100g	% loss from berry
berry	4.52	1411.76	1764.71	49.02	3655.02	NA
juice run 1	0.00	474.83	2127.26	332.38	2954.50	19%
juice run 2	0.00	1135.33	1429.80	238.42	2870.25	21%
jelly a	1.46	883.23	583.83	7.49	1837.97	10%
jelly b	1.36	775.02	511.66	7.52	1651.73	11%
syrup 1	5.57	1730.35	2876.71	230.71	5279.03	29%

Note: Jelly A contained 0.56 g Aronia Juice/g Jelly, Jelly B contained 0.5088 g Aronia Juice/g Jelly, and Syrup 1 (pure Aronia syrup) contained 2.0438 g Aronia Juice/g Syrup.

As seen in Table 3, the Aronia berry contains the highest amount of phenolic compounds per berry. When used as part of a product, the phenolic and acid compounds were the highest in the jelly and syrup products. Because the jellies were produced first, it is possible that storage did not have as large of an effect on the total phenolics. In contrast, the juices made at a much later date, making them potentially susceptible to oxidation and temperature fluctuations during storage, were lower in phenolics. While the Aronia syrup has the highest concentration of phenolic compounds, the heating process used to concentrate the juice into the syrup resulted in the greatest percent (29%) loss of phenolics. These values are lower than researched literature. Some possible causes are the differences in extraction method for HPLC analysis, as well as large variation among berry crops from environmental factors. Also fresh Aronia berries were unavailable to us during the study and all the berries were shipped to us frozen. Finally, we did not know the age of the berry crop prior to handling of the berries for analysis. Storage conditions prior to arrival at ISU are also unknown, leading to potential causes of degradation of phenolics. Overall,. processing the Aronia berries into other food products overall maintained their phenolic (antioxidant) levels (71-90% retention).

Table 4 (See Page 11) shows the phenolic compounds of all Aronia products produced, including those blended with other juices. Syrups again showed the most phenolic and acid compounds due to the concentration of the juice to make the syrup. Cherry juice and grape juice also are quite high in malic and tartaric acid. The addition of cherry juice to the Aronia berry juice increased the resulting blended juice's phenolic content (Table 4). The wines showed a decrease in total phenolics and may continue to decrease as the wines are aged, as red grape wines, to increase their palatability.

Table 5 is a comparison of the Aronia berry and Aronia juice to berries commonly considered "Superfruits" due to high phenolic content. We can see from this table that with the same extraction method, the Aronia berry is comparable to cherry juice and much higher than blueberries. As noticed in table 5 that cherry was the only fruit that has higher phenolics content

than Aronia berry. It is possible that because the cherry juice used in the experiment was reconstituted from commercial black cherry juice concentrate according to the direction of the package and there is no way to know if the dilution factor was dilute the concentrate to the original state of the juice or to the concentration that consumers like. Also studies have suggested that cherries do have a high level of antioxidant compounds and especially the black cherry (Prunus serotina) variety.

Table 5. Comparison to Aronia Berry and Juice to Common “Superfruits”

	idaein	procyanidin	catechin	caffeic acid	epicatichin
Product	mg/100g	mg/100g	mg/100g	mg/100g	mg/100g
Aronia berry	313.73	78.63	0.39	24.07	6.84
Blueberry	606.06	3.14	0.19	0.60	0.00
Juice run 1	0.00	0.00	14.10	0.65	4.06
Juice run 2	0.00	59.61	0.05	1.09	4.84
Concord grape juice	612.15	3.77	0.53	1.41	15.51
White grape juice	950.76	3.11	1.08	0.20	0.00
Cherry juice (from concentrate)	295.94	120.23	3.28	0.31	0.26
	ferulic acid	tartaric acid	malic acid	citric acid	Total
Product	mg/100g	mg/100g	mg/100g	mg/100g	mg/100g
Aronia berry	4.52	1411.76	1764.71	49.02	3655.02
Blueberry	0.00	838.38	1707.07	0.00	3155.64
Juice run 1	0.00	474.83	2127.26	332.38	2954.50
Juice run 2	0.00	1135.33	1429.80	238.42	2870.25
Concord grape juice	0.00	782.87	518.77	320.69	2255.94
White grape juice	0.00	848.90	660.25	0.00	2464.30
Cherry juice (from concentrate)	0.00	2950.15	1174.51	416.17	4961.35

Beneficiaries

Beneficiaries are regional specialty crop producers in the Midwest who are growing aronia or are considering planting aronia as an orchard crop and who plan to market commercial products made from Aroniaberry. It will assist in marketing decisions, help guide decision making and guide development of the industry.

Prairie Winds RC&D has distributed copies of the final report to the 90 + members of the Midwest Aronia Berry Growers Association and to 124 members of the North Central Iowa and Southern Minnesota regional marketing association named Local Food Producers Market Association. The Minnesota Fruit and Vegetable Growers Association, and Iowa Fruit and Vegetable Growers, and the Regional Food Systems Working group at the Leopold Center for Sustainable Agriculture will also distribute the report to their members and display the report on their websites. Prairie Winds RC&D will post the report on its website at prairiewindsrcd.com. This meets our goal of a minimum distribution to 200 specialty crop producers having access to the report for their marketing decision making.

Lessoned Learned

It was determined that the total phenolic compounds found to be in Iowa grown Aronia berries are comparable to and in most cases higher than those found in other fruits commonly classified as "superfruits." Differences in the phenolic content of the berries received for testing purposes showed lower phenolic levels than literature values, but variation in analysis methods and conditions, sampling method and environmental conditions during growth and storage are the most likely contributing factors to the differences in these values. Comparison of the products to the frozen berries, the jellies showed the least amount of degradation of the phenolic compounds due to heating in processing. During the experiment, one of the biggest obstacles with the Aronia berry wines from a sensory point of view was the astringency of the wines. It is believed that tannin is the main contributor to the astringency. In this experiment, the wines were fined once with gelatin and barely had any aging. So they are considered very young wines. And in order to reduce the astringency, further fining and longer period of aging are believed to mellow out the astringency. However, as shown in this study, wines also showed degradation in phenolics, and it would be expected that these values would continue to decrease as the wine is aged. Overall, the products made from Aronia berries retained the majority of their phenoics/antioxidants and good color, which will allow these products to compete in the market place. Care must be made to formulate products that allow the astringency of the berries to be removed or hidden.

Also one of the most intriguing 'side effects' of Aronia berry during the experiment was the great coloring ability. Aronia berry has a very deep rich reddish purple color that is so concentrated in the berry that the berries and the juice appear to be almost black, which shows great potential to be an all nature coloring agent. And it retains the color very well under heat process, as all the jam, jelly and syrup products retained the deep rich color of Aronia berry after even an extended period of heating.

In future studies, a more quantitative study on the stability of the color versus pH, temperature and other various conditions are necessary to establish the potential of the utilization of Aronia berry as a colorant. Other future research possibilities include finding a way to determine whether and how much Aronia berry was used in the different products. Finding a benchmark compound or a specific ratio between certain compounds would allow us to determine the presence and amount of Aronia berry in a given product. Also, from an agricultural practical point of view, finding a way to tell the right time to harvest the berries would be essential to obtain the quality and processing potential of the berries. All of these studies would be important and valuable for the future use of Aronia Berries in foods and beverages.

Goals and expected outcomes were achieved. They have of course led to many more questions about aronia berry product marketing as addressed above. Overall jams, jellies and wines seems to be well sited products to market from aronia berries as they can be made from 100% berry product and do not require combining Aronia with other berry products to make pleasant tasting products if the recipes are adjusted to mask the astringency. They represent the best products in terms of retaining their antioxidant value with during processing and therefore benefit from any health benefits associated oxidant content.

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See following page Table 4

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

Appendix

Table 4

Product	idaein mg/100g	procyanidin mg/100g	catechin mg/100g	caffeic acid mg/100g	epicatichin mg/100g	coumaric acid mg/100g	ferulic acid mg/100g	tartaric acid mg/100g	malic acid mg/100g	citric acid mg/100g	Total mg/100g
Aronia berry	313.73	78.63	0.39	24.07	6.84	1.35	4.52	1411.76	1764.71	49.02	3655.02
Juice run 1	0.00	0.00	14.10	0.65	4.06	1.23	0.00	474.83	2127.26	332.38	2954.50
Juice run 2	0.00	59.61	0.05	1.09	4.84	1.11	0.00	1135.33	1429.80	238.42	2870.25
Jelly a	344.31	15.79	0.13	0.46	0.76	0.49	1.46	883.23	583.83	7.49	1837.97
Jelly b (more sugar)	339.35	15.27	0.16	0.58	0.46	0.34	1.36	775.02	511.66	7.52	1651.73
syrup 1	331.65	100.79	0.06	1.00	0.00	2.18	5.57	1730.35	2876.71	230.71	5279.03
Aronia wine	491.54	22.06	1.10	0.28	3.07	0.39	4.55	454.95	811.00	989.02	2777.94
Aronia & Concord grape wine	431.02	52.16	2.62	0.17	3.46	0.63	4.78	965.56	1015.33	218.99	2694.71
Aronia & Cherry wine	463.50	22.88	0.87	0.81	2.70	0.40	3.86	515.00	703.18	178.27	1891.48
Aronia & White grape wine	470.54	29.01	0.96	0.45	0.00	0.34	10.07	438.64	697.84	139.57	1787.41
Aronia & Grape syrup	322.47	37.55	0.00	0.40	0.71	1.13	2.16	2121.10	1483.34	236.47	4205.33
Aronia & Cherry syrup	213.52	135.52	0.00	1.20	1.26	2.93	2.63	2412.81	4797.15	711.74	8278.77
Aronia cherry syrup more sugar added	208.93	69.74	0.12	0.64	0.82	1.04	0.00	1909.22	1066.28	381.84	3638.64

Farm to Institutions:
New Markets for SE Iowa Specialty Crop Producers

Pathfinders RC&D, Inc.

Final Performance Report
Iowa Specialty Crop Block Grant Program
November 2010

Farm to Institutions: New Markets for SE Iowa Specialty Crop Producers
Final Progress Report
Pathfinders RC&D, Inc.
November 2010

Project summary: The purpose of this project was to create a new initiative to link specialty crop producers with institutional buyers including schools, hospitals and care centers in the Hometown Harvest of Southeast Iowa local food region. This was to be accomplished by hiring a full-time Local Foods Coordinator to facilitate linkages between growers and institutional buyers to provide fresh, delicious and nutritious local food while stimulating community health and economic development. The six counties in the Hometown Harvest area include Davis, Keokuk, Jefferson, Mahaska, Van Buren and Wapello.

Project Approach:
The first step for this project was to hire a Local Food Coordinator to oversee and carry out the project. The Local Food Coordinator position was filled in late 2009. The person filling this position was finishing college and worked part-time in November and December. The employee began working fulltime January 1, 2010.

The Farm to Institution project was focused on expanding markets for specialty crop producers through direct sales to institutions including hospitals, care facilities, and schools. Many existing specialty crop producers in southeast Iowa were selling direct to consumer by selling at farmers markets and/or operating a Community Supported Agriculture (CSA) enterprise. By creating larger market outlets, specialty crop producers could expand production and increase profits.

The Farm to Institutions project was designed to assist producers ready to take their operation "to the next level" and expand their production and sales. The original vision of the project was to have the Local Food Coordinator cultivate relationships with institutional buyers and determine which institutions were interested in sourcing locally grown fruits and vegetables for their food service programs. Once this was established, the Local Food Coordinator would connect the interested institutions to the farmers who had the desired products available for purchase and help establish the protocol for order and delivery. From this point it was anticipated the farmers and institutions would develop a long-term relationship and thereby establish a new market for the farmer.

This vision turned out to be both over simplified and overly optimistic.

The Farm to Institutions project included outreach to all schools, hospitals and care centers in the six county area. The area includes 15 school districts, six hospitals, 18 assisted living/ care centers and community college. Outreach to schools was made to schools in the fall of 2009. Initially six schools indicated interested in purchasing locally grown food and the Local Food Coordinator began to assist them to source product as it became available in spring 2010.

Outreach to the other institutions began in spring 2010 through direct communication and an informational meeting. An "Institution Roundtable" was held on June 23. Institutional

food buyers were invited to hear from other food service buyers that are having success sourcing locally grown fruits and vegetables. Speakers included representatives from Bartles Retirement Community in Waverly, Iowa, and Cass County Memorial Hospital in Atlantic, Iowa. Twenty-three people representing eight healthcare facilities attended the roundtable program. Two months after the roundtable follow up was conducted with each of the participants. The Coordinator provided guidance and assistance as requested.

Other institutions were approached one-on-one about purchasing locally. This method was particularly effective in engaging Sunnybrook Assisted Living (with facilities in four different communities) to start buying locally. The Local Food Coordinator brought one specialty crop producer, Claude Nicholson, to meet with the person in charge of food service at four Sunnybrook Living Facilities. The producer brought along a sample of asparagus. Additionally, on two other occasions the Local Food Coordinator took one of the Sunnybrook facility mangers and one of the business' owners to the Southern Iowa Produce Auction so they could see the quality and quantity of product available through the auction venue. Additionally, a tasting was organized at one of the facilities on September 15 for the residents at one of the Sunnybrook facilities. Two specialty crop producers, Claude Nicholson and John Rousch shared samples of their product and shared information about their farms. The cook is very supportive but she moved to part time in fall 2010. In November 2010, Sunnybrook hired a new Culinary Director and he wants to meet to talk prices, and see examples of product. This relationship will continue to be developed.

In other outreach, a meeting was set up between a local food producer, Kathy Hohl, and the Ottumwa Hy-Vee store director and produce manager. Hy-Vee is definitely interested but need more data and Kathy is going to follow up in the off season. Another Hy-Vee store, located in Fairfield, met with and began selling cut flowers from a local, organic farm.

A meeting was also set up with the chef at the local country club and several samples of producer shared. The Local Food Coordinator agreed to keep him sourced on all the local food she can find for him and purchased eggplant and green beans to start. The chef stated he is completely supportive but does not have the time to source local food on his own.

Time was also spent with Phil Danowsky, manger of Local Harvest Supply, the local food distribution arm of Hawkeye Foods, and some of our local producers to see if this was a feasible market for them. It was eventually determined the farmers could secure a better price by forming their own Alliance instead of selling through Local Harvest Supply.

Public awareness about the project was also generated through a radio interview, press releases and a booth at community events.

As a result out institutional outreach efforts, the Local Food Coordinator developed thirteen institutional buyer programs. The six schools included Van Buren County School District, Fairfield Community School District, Harmony Community School District, Tri County Community School District, Fremont Community School District and North Mahaska Community School District. There was one institutional healthcare facility, Sunnybrook Assisted Living, but they purchased for three different facilities. Lastly, the project developed sales relationships with three restaurants: Fairfield Golf and Country Club, Revelations Café and Top of the Rock, all located in Fairfield. While restaurants were not originally part of the defined institutions, they do represent a market that buys in larger quantity.

While completing outreach to institutions, producer-oriented trainings were hosted to help transition local farms towards institutional sales. The first training held March 2010 was a Farm to Institution event, where Local Harvest Supply, an institutional aggregator of local food, was represented, as well as Van Buren, Harmony, Fairfield, and Fremont Community school districts. The highlight of the event was for the institutions to meet with local producers. In addition, the farms who registered for this event were provided free business cards to use with the contacts that they made while at the event. Several farms registered and attended: Radiance Dairy, Bloom and Bark, Kathy's Pumpkin Patch, Sharon's Produce, Yoder's Natural Meats, CR Eggs, Leslie's Little Bit of Heaven, Gene Kromray, Yummy Tummy Gardens, and Rolling Prairie Acres. Of these 10 farms, eight are specialty crop producers.

Another producer training focused on food safety and post-harvest handling took place in April. Several farms pre-registered but five actually attended. Bloom and Bark, Kathy's Pumpkin Patch, Sharon's Produce, Patsy Boas, and Yummy Tummy Gardens were in attendance.

Producer trainings for Good Agricultural Practices became available to our region, and these trainings were also provided as necessary for institutional sales. These training sessions occurred in two parts. The first part held the widest attendance of regional farms and included Sharon's Produce, Bloom and Bark, Blooming Acres Farm, Nature's Way, Rolling Prairie Acres, Brush Creek Organics, Kathy's Pumpkin Patch, Appleberry Orchard, Many Shades of Sisterhood, Chad Prochaska, CR Eggs, and Mary O'Dell. The second part of the workshop which covered writing the farm food safety plan attracted fewer farms: Bloom and Bark, Blooming Acres Farm, Appleberry Orchard, and CR Eggs learned about the process.

The biggest challenge during the project in 2010 turned out to be production. To successfully supply larger food service programs, the seller must have enough quantity of the desired product. The 2010 growing season proved to be one of the worst seasons on record for food production in southeast Iowa. Ongoing rainfall from April through the end of July plagued farmers and their crops. For example, between April 1 and July 31, two of

the cities in the project area (Bloomfield and Ottumwa) had more than 21 inches of rain above the average rainfall. Constant rains flooded out several farms that typically are very strong suppliers for the region, and the timing in the season meant that nearly all except for late fall crops were lost.

One of the participating farms had a high-tunnel which allowed them to mitigate some of the weather-related losses. This farm was able to supply cherry tomatoes, tomatoes, green onions, eggplant, and bell peppers to an assisted living facility and four school districts. Four more farms are in process of constructing or have recently finished constructing high tunnels for production in the 2011 growing season. Overall, however, the early summer rains left many farmers without available produce to supply the new markets we were helping to develop for them. With less produce available, overall outreach efforts were reeled back.

For those producers who did have fruits and vegetables available, the Local Food Coordinator began to aggregate produce from multiple farmers and coordinate delivery to the buyer. As a result, the Farm to Institutions project focused much effort on forming a "Producer Alliance" to facilitate the sale of aggregated product. During 2010, a total of 10 farms sold specialty crops through the Alliance including Appleberry Orchard, CR Eggs (who sells vegetables in addition to the eggs), Gerst Family Farm, Sharon's Produce, Wayne Nisly, Bloom and Bark, Blooming Acres, Kathy's Pumpkin Patch, Willie Van Weelden and Aurora Farms. This represents one-fifth of the producers we anticipated engaging in this project. As stated above, the very poor growing season for producers caused many producers to have extreme crop loss and therefore did not have produce to sell.

<u>Goals and Outcomes Achieved:</u>
The *Farm to Institutions* project had three measureable outcomes. Each original goal is listed in bold print with the actual outcome following.

1) **Work with a minimum of 50 specialty crop producers to prepare them to market to and supply institutional markets developed through this project.** The Local Food Coordinator provided training to 17 specialty crop producers to help prepare them for institutional markets. The original estimate of the involvement of 50 producers was in anticipation of more involvement from producers who sell at the Drakesville Amish Produce Auction. The Produce Auction contains a network of more than 200 Amish producers. As the project began to work on the development of a producer alliance and invited the participation of the Amish produces, we found the Amish community was very wary about being involved. In general, we learned the community is not interested in being involved in anything with contracts or "promises to deliver" a particular quantity of a certain product. This created a major roadblock in efforts to further develop markets for these producers. Considering the non-Amish specialty crop

producers in the area, we were able to work with over one-third, or 34% of those producers (17 out of 50).

2) **Develop a local food /specialty crop purchasing program in six schools in the project area with a minimum combined investment of $18,000 by the schools during the 2009-2010 school year.** The Local Food Coordinator did work with six schools throughout the project, but sales receipts were only $1,725. All local food purchases were coordinated by the Local Food Coordinator, so these sales were tabulated for this report.

Part of this shortfall was due to lack of supply because of the very poor growing season, but more of the issue had to do with attitudes and capacity of the schools to use fresh ingredients as the basis of their meals. Fresh foods are not used in abundance, and meals are not made from "scratch." It is challenging to find ways to work fresh ingredients into the meal planning.

One school district, located in Van Buren County, has salad bars at their middle and high schools. They use fresh, local lettuce, sweet peppers, cucumbers, and cherry tomatoes whenever those items are available. Nonetheless, this only accounts for a population of 400 students. Four of the school districts participating in the Farm to School program have even smaller student populations. Another school district in Van Buren County has total student enrollment of 500. They are more apt to prepare more of their meals, and love the produce that they can source locally.

One small Mahaska County school district with less than 150 students likes to add the produce to meals as an "extra;" for instance, when cantaloupe and watermelon were in season, they happily bought what was available and served it to the students without the produce having been on the menu. This type of flexibility is wonderful to work with.

One school district had a very difficult time purchasing and using local foods because one of the two kitchen staff left, and the school district did not replace the staff person. Instead, the head cook was given one staff person who would spend three weeks working in the kitchen before being rotated to another position within the school, effectively making training for the position impossible. This created so much work for the head cook that she could not spare any time for preparing fresh produce. Their concern over the time that fresh produce takes to prepare is a valid concern, but many foods that the schools choose not to use are very easy to prepare, such as winter squashes, so one of the greatest opportunities for local foods in schools is to help the schools learn how to use different types of produce.

Schools also voice concern about how to serve vegetables so that students will eat them, so "tastings" could play an important role in convincing schools that students will

eat the foods. Some schools are so involved with new school lunch regulations that they have a difficult time working with the anomalies of local food such as lack of necessary paperwork and Hazard Analysis and Critical Control Point documentation. One school even reported that they could not use carrots for their salads because new lunch regulations said that carrots were too high in sugar.

There was one additional school that expressed interest in purchasing locally in fall 2010. This is the Ottumwa Community School which has the largest school food service program in the project area. The Local Food Coordinator worked to source product for Ottumwa in the fall of 2010, however the lack of supply made it impossible to provide the amount of product there were willing to purchase.

3) **Develop a local food purchasing program in 2 hospitals and 5 care centers for a combined investment of $175,000 during 2009-2010.** Sales made to 3 assisted living facilities and 3 restaurants engaged in the project totaled $1,992. All local food purchases were coordinated by the Local Food Coordinator, so these sales were tabulated for this report. This total falls far, far short of the $175,000 optimistically projected for this project. The extremely wet weather was one major factor that severely limiting the amount of specialty crop product that was available to sell this year. With a shortage of produce, the project had to cut back on the level of outreach to institutions. In the limited markets that were developed, producers had a difficult time meeting the demand with the limited produce.

We found hospitals were particularly difficult to bring into the fold for buying local specialty crops and therefore achieved no sales to hospitals in 2010. Aside from the lack of supply, several of the hospitals were cutting their food budgets, so the cost to purchase locally was prohibitive. In addition, another hospital was nervous about sourcing from local farmers and stated each individual producer must carry $3 million of liability insurance. This is very cost-prohibitive for a small producer. The Cass County hospital that spoke at the roundtable event explained that they are not concerned about their producers having expensive liability insurance since they know who grows the food and how it is grown. However, this viewpoint is obviously not shared among all hospitals in the state and continues to remain a challenge in southeast Iowa.

<u>Beneficiaries:</u>
Seventeen specialty crop producers/farms took part in training related to this project: Bloom and Bark, Kathy's Pumpkin Patch, Sharon's Produce, Nature's Way, CR Eggs (a vegetable producer in addition to eggs), Leslie's Little Bit of Heaven, Gene Kromray, Yummy Tummy Gardens, Rolling Prairie Acres, Brush Creek Organics, Blooming Acres, Patsy Boas, Appleberry Orchard, Many Shades of Sisterhood, Chad Prochaska, and Mary O'Dell.

In addition, a total of 10 farms sold specialty crops to institutions through the Alliance including Appleberry Orchard, CR Eggs (who is also a vegetable producer), Gerst Family Farm, Sharon's Produce, Wayne Nisly, Bloom and Bark, Blooming Acres, Kathy's Pumpkin Patch, Willie Van Weelden and Aurora Farms.

Lessons Learned:
One of the biggest lessons learned was that specialty crop production is Iowa is very vulnerable to weather. The relentless rains this early summer severely affected supply and the outcomes of this project. Our plan to develop new institutional markets relied on the availability of produce, and there just wasn't much produce available in southeast Iowa in 2010.

While the weather created one major barrier in terms of production, we also identified additional obstacles that affect the development of institutional markets. The largest challenge to overcome with formal institutional buyers is strict restrictions related to their budgeting. We expected that budgets might play a factor in sourcing certain products that might be higher priced than fruits and vegetables grown on a large scale and shipped in from long distance. Food prices did play a role in the some of the school dining programs where they rely heavily on commodity programs and are unwilling to substitute fresh product for heavily subsidized (or even free) product. One school commented they try to create a plate of food for $1.67. This creates a very challenging environment to replace highly subsidized food with fresh, locally raised foods.

We also found, however, that the biggest budget implications were not related to the price of food. The biggest issue was the number of kitchen staff available for meal preparation. Preparing fresh, whole foods does require more labor than serving processed "heat and serve" foods. We found many institutions (schools and health care facilities) do not budget enough money to adequately staff kitchens with the number of staff needed to process fresh food, and this is not easily overcome.

Another issue barring success for institutions is the lack of training for kitchen staff to know how to process fresh foods. In all of the facilities we worked with in the project, not one individual in the kitchen staff had any formal training in food processing. For example, most kitchens were staffed with people who had never received any knife safety training before or since being hired on as institutional kitchen staff. In addition, staff were unsure how to process items to make the best use of food items such as a tomato or green beans.

Comments brought forth in a survey of institutional buyers support our findings:

- *the biggest challenge this year was availability and consistency* (result of 2011 poor growing season)

- *it's helpful to have someone do the legwork (who has what, pricing, availability, transportation, etc.* (important role the Local Food Coordinator plays)
- *The "convenience" is what is missing when you buy locally* and *It's hard to find the time to make the needed phone calls to the lockers and farmers so that I can make further decisions. Time just seems to slip quickly. Other things seem to be put on top of the list that need more attention.* (important role of the Local Food Coordinator and benefit of aggregated product simplifying the process)
- *Patients and staff all enjoyed the homegrown food items*

Future efforts and opportunities:

It is encouraging to see that in institutions successfully implementing local food into their menus, kitchen directors do prefer the quality of fresh, local fruits and vegetables. They are excited to have such high-quality produce to use in their meals, and people being served the meals also prefer the flavor and quality of locally-grown foods. However, as outlined above, the majority of school and healthcare institutions lack adequate numbers of trained kitchen staff to prepare larger quantities of fresh, whole foods.

In 2011, we will continue to work with the school and healthcare institutions that are the enthusiastic about sourcing local foods. Using what we have learned through this project, however, we have determined that our specialty crop producers will be better served by focusing efforts to develop another segment of the market, the restaurant industry. Restaurants serve and keep their clientele on the basis of the quality of their food, and are therefore willing to pay an extra price for locally-raised food. Restaurants also hire staff for their kitchens who already know how to process fresh foods and therefore do not have to look for additional staff training. Chefs and sous-chefs are especially passionate about the quality of fresh, locally-grown foods, and often are given free reign when ordering foods for the establishment. For this reason, our efforts in 2011 will be focused on sales to restaurants.

To continue the growth of our local fruit and vegetable supply chain, the alliance of farms will continue to evolve into a more formalized organization. Strategic planning sessions over winter will address the quantities and types of crops where more production is needed in order to meet demand, and a coordinated system to have producers co-produce crops will be put into place. Aggregation and distribution challenges will be outlined, and actionable strategies identified and ready to enact for 2011. Restaurants that bought local food in 2010 will be approached again to better determine what needs were met and which needs were not, and additional restaurants have been identified as places where local food is desired.

We also anticipate 2011 will bring about more favorable weather and result in much higher product yields. Also, the addition of five high tunnels by specialty crop producers in our area will better mitigate adverse growing conditions if they do occur.

Much has been accomplished to secure a future for local food supply, aggregation, and distribution in southeast Iowa. By marketing local foods to local schools, hospitals, care facilities, and restaurants, challenges in supplying local food to local institutions were identified, as were future possibilities. Some of the challenges were met through the formation of a local food alliance, an alliance of southeast Iowa farms that worked together to provide these institutions with their local food requests. Other challenges still remain, such as the formalization of the alliance group and the technical aspects of local food production such as season extension and weather mitigation.

Financial Report:
Total grant awarded: $15,000
Budget item: Food Coordinator Salary
Expended to date: Pathfinders RC&D/$14,532
Remaining balance: $468

Contact Person:
For more information about the contents of this report contact:

Elisabet Humble, Local Food Coordinator
Pathfinders RC&D, Inc.
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Fairfield, IA 52556

Email: elisabet@pathfindersrcd.org
Phone: 641/472-6177

Iowa State Horticultural Society

4225 Fleur Drive, #135
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www.iowahort.org

Final Performance Report ***Submitted 10-15-2010***

Project Title: Expanding the Educational Program and Marketing of the All-Iowa Horticulture Exposition

Contact: Kelly D. Norris, Co-Chairman, kellydn@iastate.edu, 712-621-5399
Gary Twedt, Co-Chairman, gtwedt@lisco.net, 641-777-0455

Project Summary

The Iowa State Horticulture Society (ISHS) was founded in 1866 for the purpose of promoting and encouraging horticulture and its related interests in Iowa through the collection and dissemination of information concerning production, marketing, and utilization of horticultural crops. Throughout its 154 years, ISHS has worked with over two dozen affiliate associations, the Iowa Department of Agriculture, and Iowa State University to meet this mission. It is a non-profit organization that receives no funding from the State of Iowa and is governed by a Board made up of Directors from the affiliate organizations, including the Iowa Nut Growers Association, the Iowa Nursery and Landscape Association, the Iowa Fruit and Vegetable Growers Association, the Iowa Honey Bee Producers Association, the Iowa Christmas Tree Growers Association, the Iowa Florists Association, and the Iowa Wine Growers Association. Other horticultural interest or environmental groups constitute the remainder of the affiliate associations. The mission of the All-Iowa Horticulture Exposition (AIHE) is to provide educational opportunities that will enhance the competitiveness of specialty crops grown in Iowa.

The AIHE was first organized and held in 2009 as an experimental project of the ISHS. Evaluations from the 2009 event from both attendees and exhibitors were overwhelmingly positive and further encouraged the Board of Directors to pursue the event as a signature programming initiative. In 2009, the educational sessions were very well attended and speakers,

primarily Iowa State University faculty and staff and affiliate members, received very positive comments and ratings. We continued to draw heavily on Iowa resources for the 2010 Exposition, primarily to emphasize the ISHS's commitment to developing horticulture within the state and showcasing the knowledge resources available through the affiliate organizations and Iowa State University Extension.

Project Approach

The All-Iowa Horticulture Exposition committee followed the timeline below when managing and directing activities leading up to the event:

October 2009 – Established roster of events and finalized scheduling of major programming initiatives. Began contacting speakers to fill out the education roster and delegated responsibilities for the newly conceived Children's Garden to an ISU graduate student as part of a research project into children's perceptions of gardening and nature.

November 2009 – Contracted expert speakers, including two nationally recognized keynotes. Formal press announcement of the All-Iowa Horticulture Exposition. Registrations and exhibit information mailed out or sent by email to a database of individuals, businesses, and organizations, including vendors and partners from the 2009 Exposition.

January 2010 – Marketing efforts in full-swing. Press releases distributed twice monthly to a pre-screened list of media outlets including radio, TV, newspaper, ISU Extension-related venues, and garden communication professionals statewide. Coordinated design and development of flyers with ISU Extension design professionals for distribution at horticultural events leading up to the Exposition. Paid advertisements sent to publications for February-early March editions. Additional registration materials were sent to prospective exhibitors. Development of the ISHS Boutique, spearheaded by volunteers began. The Boutique featured books and plants promoted by various speakers on our education roster.

February 2010– A local steering committee formed and met during the month. Local volunteers were recruited. A detailed, aggressive plan for logistics, registration, and details of the event was developed with the help of ISU Extension personnel and local volunteers. City and State Bureaus of Tourism were also involved with promotional efforts.

March 2010 – Final planning, hold event, review and evaluate success of the 2010 All-Iowa Horticulture Exposition.

April 2010 – Prepare reports and begin planning for 2011. Held recap meeting to review evaluation forms, review suggestions for improving the structure of the 2011 event, and map out a basic plan for 2011.

In all, the committee would like to advance the timeline for future events, beginning planning of major programming elements such as the trade show in advance of the start dates for the 2010 Exposition. Further planning and relationship building, particularly with local partners would greatly enhance the performance of the total event. Due to a spate of bad weather prohibiting statewide travel, the local committee didn't formally meet with the conference planners in person until late February, which created a very rushed time frame to formulate and finalize a variety of important local decisions including local marketing, attendee registration, etc. This underscores the desire of the committee to begin planning work well in advance for 2011.

Despite the increases in advertising and marketing, attendance was slightly lower in 2010 than in 2009. Attendance in 2009 was 720; in 2010 attendance dropped to 400. Several factors contributed to this including 1) multiple overlapping events drawing on the same audience, 2) competition for tradeshow vendors among competing events, and 3) inclement weather bringing four inches of rain-snow mix on Saturday morning of the conference. On the positive side, the audience included people from 33 counties in Iowa and 4 counties from surrounding states. Educational sessions were well attended and audience evaluations of speakers were highly favorable, suggesting that the educational offerings were superior to other conferences and well-programmed. Feedback returns were up 18% from 2009.

Goals & Outcomes Achieved

The All-Iowa Horticulture Exposition fits perfectly with the purpose and organization of the Iowa State Horticultural Society. The ISHS was founded in 1866 for the purpose of promoting and encouraging horticulture and its related interests in Iowa through the collection and dissemination of information concerning production, marketing, and utilization of horticultural crops. The expansion of the educational program and marketing for 2010 was intended to have the following long-term impacts:

1) More Iowa citizens attending the conference will have opportunities to learn about consumer and commercial horticulture.

2) All 23 of the ISHS affiliate organizations and their individual members will benefit from the All-Iowa Horticulture Exposition by making the public aware of the many varied horticultural and specialty crop associations at work in Iowa.
3) This educational event will enhance the competitiveness of specialty crops in Iowa by increasing public awareness of locally produced crops, products, and services.
4) New entrepreneur growth in the specialty crop industry will be increased due to the information presented to professional groups and public attending this event.
5) Increased interest in consumer horticulture will benefit those Iowa businesses that provide horticultural products and services or grow and sell specialty crops.

Regarding items 1 and 2, conference evaluations are the primary means of feedback from both attendees and exhibitors. Ninety eight percent (98%) of attendees responded affirmatively to the question "Would you attend this event next year?" and a 99% affirmatively when asked "Would you recommend this even to others?" These exceptionally high satisfaction rates validate the quality and quantity of learning opportunities presented at the All-Iowa Horticulture Exposition.

Qualitatively, many affiliate organizations that chose to participate in the Exposition were satisfied with their interaction with attendees. The evaluations used for exhibitors asked the question "Were you satisfied with the amount of traffic around your booth?" to which 64% responded "yes." Sixty nine percent (69%) of exhibitors rated the Exposition "good" or better on a 5-point scale ranging from "poor" to "outstanding." These solidly positive ratings lend support to the ways in which the ISHS manages the AIHE, but suggest room for improvement as addressed in the section "Lessons Learned." The ISHS is also considering additional ways in which to quantitatively measure long-term goals (items 3-5) across time so as to effectively pursue its mission of supporting and promoting horticulture in the state of Iowa.

Expected Measurable Outcomes

The core funding proposal for the 2010 Exposition focused on investing funds in marketing and education. The 2009 Exposition was primarily marketed through the newsletters of our affiliates and distribution of flyers at events in central Iowa. For 2010 the Exposition was marketed by direct mail to members of affiliate organizations, to members of statewide associations such as Master Gardeners (each of the 99 counties in Iowa has a Master Gardener program), and to

garden clubs, arboretums, and public and private garden members. In addition, horticulture professionals and supporting businesses from across the state were invited to participate as exhibitors. Faculty and students of Iowa State University and community colleges that have horticulture and landscape design programs were invited to participate and exhibit. Print and radio/TV advertising was purchased where affordable and community calendars and public service announcements were utilized through the distribution of press releases. The 2009 Exposition featured an all-Iowa roster of speakers and utilized a statewide gardening celebrity at no-cost for a keynote presentation. For 2010 the Exposition featured two nationally known keynote speakers and a diverse roster of regional experts that presented topics across a wide range of horticultural topics pertinent to home gardeners and small business horticultural professionals.

In light of that overarching intent, we expected the following outcomes from the 2010 Exposition:

- Increased understanding of horticultural practice and industry in Iowa as a result of expanded educational programs, exhibits and demonstrations.
  Achieved. *Conference evaluation forms reported high favorability ratings for virtually all speakers. The conference total ranking for speakers (rated on a scale of 1-5 with 1 being poor and 5 being excellent) was 4.7.*
- Greater participation in educational sessions, particularly nationally-recognized speakers sessions, as indicated by counts of attendees.
  Achieved. *The 2010 Exposition featured two concurrent tracks instead of three as in 2009. This resulted in increased attendance across each track. The keynote session for each day was scheduled in its own individual time slot to allow for a full 1.5 hour session complete with question-answer period for the audience. Both keynote speakers qualitatively reported to the Exposition Chairmen their satisfaction with the scheduling and appreciated the freedom of time to communicate their messages and content. Attendees generally ranked speakers with handouts or materials higher than those that didn't.*
- Increased attendance at the 2010 All-Iowa Horticulture Exposition demonstrated in both attendee registrations and vendor exhibits. We expect a minimum of doubling the attendance to 1600 and with a goal of reaching 2500-3000 attendees. We plan to increase

vendors to a minimum of 80 through increased efforts of recruitment statewide.

Failed. *Conference attendance declined in 2010 primarily because of inclement weather and scheduling conflicts with other gardening events across the state that created competition for the same audience. Vendor attendance also did not increase as expected, primarily due the aforementioned competition with other similar events.*

- Greater geographic distribution of attendees measured by demographic surveys taken at time of admission. Because of our limited access to publicity and direct marketing, most 2009 attendees were from the immediate area (central Iowa). Expanded marketing statewide will result in increased attendance from other parts of the state.

  Achieved. *Conference attendees came from 33 counties in Iowa (1/3 of the state's counties), broadly distributed across the central, southeast, and northeast quadrants of the state with significantly less attendance from the southwest and northwest quadrants. Attendees from nearby states (Illinois and Missouri) were also present.*

- Increased awareness of the attendees about important specialty crop issues in Iowa. This outcome is valuable from the viewpoint of individual specialty crop producers as well as for improved public relations for the entire specialty crops industry in Iowa. Not only will many of the speakers provide issue based education of attendees but so will the exhibitors and the legislative forum participants.

  Incomplete (long-term). *This is a long term outcome that the ISHS hopes to measure more effectively in the future after several Expositions have been held to best gauge the legacy and long-term impact of the event on the competitiveness and awareness of specialty crop issues in Iowa.*

- Heavier viewer traffic on the ISHS website after professionals and public are exposed to this event as measured by tracking data before and after the event takes place.

  Achieved. *Web traffic during the marketing campaign for the 2010 Expo increased from 429 unique visitors in December 2009 to 984 unique visitors in March 2010, a 229% increase. Pages viewed increased from to 1,163 in December 2009 to 3,285 in March 2010, a 282% increase.*

- New subscriptions to *The Iowa Horticulturist* magazine published by the ISHS and sold during the All-Iowa Horticulture Exposition.

  Failed. *The publication status of* The Iowa Horticulturist *is presently under review by the ISHS Board of Directors and in light of this discussion, promotional efforts for the*

magazine were suspended during the 2010 Exposition.

- Post conference surveys to attendees and vendors will also help to measure the effect of marketing and educations efforts.

  Achieved. *The conference evaluations provided valuable data for future Exposition planning. While attendees were overwhelmingly satisfied with the Exposition, exhibitors expressed reservation as noted by lower values of satisfaction (see above) primarily due to concerns about the scheduling of the Expo (i.e.-allowing enough time for attendees to peruse the exhibits) and the marketing efforts of the trade show (i.e.-ensuring enough promotion about the trade show itself during the major marketing campaigns). A copy of the final tally of evaluation instruments is included in the additional information section.*

Beneficiaries

The 2010 Exposition benefited horticultural consumers and producers. The educational sessions directly benefited ISU Extension Master Gardeners (who were able to count the sessions towards continuing education credits) and re-certifying Golf Course Superintendent's Association of America members (who were able to count select sessions towards continuing education credits). A total of 35 horticulturally related vendors participated in the trade show with either informational or sales booths. The following ISHS affiliate and partner organizations participated in the trade show: Wapello County Master Gardeners, ISU Extension, Irises Across Iowa, Iowa Woodland Owners Association, Iowa Honey Producers Association, Iowa Nut Growers Association, Iowa Regional Lily Association, Iowa Fruit and Vegetable Growers Association, Nebraska Statewide Arboretum GreatPlants program, Kirkwood Community College, and Iowa Hawkeye Community College.

Lessons Learned

Despite successes and accomplishments, the 2010 Exposition fell short of a few goals and expected outcomes that will be addressed in the planning of future events. Primarily, our biggest failure was the inability to generate additional attendance, though this failure was perhaps more incidental due to inclement weather rather than structural as noted earlier in this report. However, overwhelmingly positive feedback from attendees reinforced that the tactical approach to the Exposition — providing exceptional educational opportunities through concurrent and keynote sessions and interactions with exhibitors — resonates with our target audience.

Structural Changes

The committee co-chairmen in concert with the ISHS Executive Board and the Local Steering Committee cite the following changes as necessary for improving the quality of the Expo in years ahead:

- Improve live-demonstrations. The live demonstrations were a new component to the education program in 2010, and while promising in concept failed to effectively impact attendees. Reviews of the content were mediocre and attendees cited scheduling overlaps and poor promotion as justification for poor ratings.
- Change dates to avoid conflicts with other competing events. The coordinators of the 2010 Exposition underestimated the impact of events within a 3-hour radius. This likely also contributed to less attendance.
- More local involvement. The ISHS Executive Board would like to enhance the involvement of the Local Steering Committee dramatically to improve on-ground relations with potential vendors, attendees, and event sponsors. These partnerships would greatly enhance the impact of the Exposition at both the local and statewide levels.

Additional Information

Please reference ZIP file for samples from our marketing campaign and evaluation instruments utilized during the 2010 Exposition.

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

Final Budget Worksheet
IDALS Specialty Crop Block Grants

Object Class Categories	1st Project Title Expanding the Educational Programming and Marketing of the All-Iowa Horticultural Exposition	Approved Budget	Actual expenses to budgeted expenses	Additional Expo Expenses		
Personnel						
Fringe Benefits						
Travel						
Equipment						
Supplies	Direct marketing materials and postage	$2,000	$1,633.56			
Contractual	Conference Speakers	$7,000	$8,266.44			
Construction						
Other	Media and Print Advertising	$5,000	$6,571.02	$10,424.84		
Indirect Charges	Not allowed	Not allowed				
Totals		$14,000	$16,471.02	$10,424.84		
Program Income				$2,362.42		

All-Iowa Horticulture Exposition
Ottumwa, Iowa ▪ March 19 & 20, 2010

Conference Evaluation

Please take the time to fill out this brief evaluation. Your thoughts and comments are very important in planning future conferences.

	1 (poor)	2	3	4	5 (excellent)
Friday Keynote Session: Designing the Perennial Border—Stephanie Cohen			8	19	56
All About Alliums—Dr. Denny Schrock			4	25	31
Building Your Small Farm Business with a Sound Marketing Plan—Penny Brown Huber				6	10
Conifer Companions—Gary Whittenbaugh			1	6	27
What to Buy, What to Plant—JeanAnn Van Krevelen		9	12	10	7
Designing Sustainable Landscapes—Ann Marie VanDerZanden			7	11	30
Early, Warm-Season Vegetable Production in High Tunnels—Dr. Hank Taber				10	10
DEMO Is it Bluegrass?—Dr. Nick Christians					1
DEMO Fruit Tree Pruning—Dr. Patrick O'Malley				1	
DEMO Trickle Irrigation—Dr. Hank Taber				2	
DEMO Nut Wizard—Bill Hanson				1	
DEMO Building Trough Gardens—Gary Whittenbaugh			1	3	3
Saturday Keynote Session: Right Plant, Right Place—Dan Heims		1	1	8	29
Building a Backyard Butterfly Habitat—Kathleen Ziemer			1	5	12
GreatPlants® for the Great Plains—Robert Henrickson				9	20
The Microclimates in Your Yard—Ray Wolf			3	10	3
Ornamental Grasses for Iowa Gardens—Dr. Lois Girton		1	7	9	7
Deer, Bulbs, and Perennials—Linda Grieve			4	14	5
Aronia Berry Production—Harlan Hamernick		1	3	8	5
DEMO Planting and Growing Lilies—Sue Williams				2	1
DEMO Chestnuts—Tom Wahl				2	2
DEMO Sneaky Vegetables—JeanAnn Van Krevelen		2		4	3
DEMO Trees Forever—Mark Signs					
DEMO Butterflies for Kids—Kathleen Ziemer					2

Would you recommend this event to others? Yes 106 No 1
99%

Would you attend this event next year? Yes 99 No 2
98% satisfaction rate

Number of evaluations returned: 130 (up about 18%)

Please list topics and/or speakers you would like us to consider for next year:

Vegetable/fruit gardening	**6**
Rain barrels/rain gardens	**5**
Composting	**4**
Sustainability/permaculture	**4**
Hydrangeas	3
Organic gardening	3
Cooking/herbs	3
Cut flowers	3
Kelly Norris	2
Q/A session	2
Climate change	2
Water gardening	2
Raised bed gardening	2
Hobby greenhouses	2
Trees	2
Edible landscaping	2
Wildlife management	1
Shade gardening	1
Children's gardening	1
Woodland management	1
Gardening with disabilities	1
Scott Ogden/Lauren Spring Ogden	1
Lee and Lindsay Lee	1
Elliot Coleman	1
Cindy Haynes	1
Allan Armitage	1
Barbara Pleasant	1
Jennifer Welch (ISU, rain gardens?)	1
Elvin McDonald	1
Monty Lovell	1
Plant propagation	1
Mushroom identification and recipes	1
Seed-saving instructions	1
Soils	1
Insects in the garden	1
High tunnels	1
Iowa gardens/nurseries	1
Community gardens	1
Daylilies	1
Fruit trees	1
Hostas	1

Additional comments:

General positive remarks	36	*Excellent event, great facility, speakers, programming, staff/volunteers
Lunch/food issues*	21	*Comments referred to location of food, menu choices, convenience, need lunch break
Scheduling*	20	*Comments referred to not enough time between sessions/demos, length, trade show, Sat/Sun etc.
Demo issues*	16	*Comments ranging from publicity, to scheduling, location, quality
Change awards ceremony	7	
Pencil/pen in bag	6	
More vendors/exhibits	5	
Handouts	4	*Encourage speakers to have handout.
Hotel publicity/block	4	
Maps/directions	4	
Recycling/garbage	3	
Repeat sessions	2	
Keep plant sale	2	*Invite ISU Hort Club back to sell. Future coordination?
Better advertising	2	
Show hours not long enough	1	
Move demos off trade floor	1	
Nametags/networking	1	
Registration desk	1	
Cost of attendance	1	
Tables in rooms	1	
More breakout sessions	1	

Possible testimonials:

"Enjoyed the expert information!"

"Well-publicized."

"An excellent and well-organized event."

"I was impressed."

Potential Exhibitors

The Garden Barn (Indianola)

All-Iowa Horticulture Exposition
Ottumwa, Iowa ▪ March 19 & 20, 2010

Exhibitor Satisfaction Survey

Please take the time to fill out this brief evaluation of your experience at the All-Iowa Horticulture Exposition. Your thoughts and comments are very important in planning future conferences.

- Overall how would you rate your experience at the Expo (please check):

Outstanding	1
Excellent	5
Good	3
Fair	4
Poor	
Total:	

- Were you satisfied with the amount of traffic around your booth?

Yes	**9 (64% satisfaction rate)**
No	4
Undecided	1

- Were you satisfied with the look and cleanliness of the facilities?

Yes	13
No	
Undecided	

- Were you satisfied with the booth check-in/check-out process?

Yes	13
No	
Undecided	

- Please share any positive feedback about the 2010 Expo:

Staff was helpful/excellent	5
Well-organized	5
Booth size/setup/price	3

- Please suggest how we can improve the Expo in the future:

Traffic/Advertising	7	
Food	3	
Demos	3	
Improve hours	3	**All said extend hours Friday night
Avoid scheduling conflicts	2	
Website improvement	1	

- Names of potential committee members:
    - Jessica Ewing
    - Dal.grooms@gmail.com
    - James Huyser (jhuyser@iowatelecom.net)

Saturday, March 20

10:00 a.m.
Keynote Presentation:
Right Plant, Right Place

Individual gardens can have deserts, swamps, and shady refuges. Internationally known plantsman **Dan Heims** of Terra Nova Nurseries will advise you on how to make good choices for problem spaces. Drawing from his life experience with thousands of plants, Dan not only presents plants as problem solvers, but offers good advice on how to keep them thriving.

11:00 a.m.
GreatPlants® for the Great Plains
The goal of the GreatPlants® program is to bring superior ornamental landscape plants into commercial production to meet the challenging growing conditions of the Great Plains. **Bob Henrickson**, Assistant Director of Horticulture Programs at the Nebraska Statewide Arboretum will discuss overlooked plants that are reliably hardy, easy to care for, and ornamentally worthwhile. Bob will also discuss exciting new releases through the GreatPlants® program. To date, GreatPlants® has released 31 new Plains-proven plants for beautiful landscapes.

How-to Build a Backyard Butterfly Habitat
Iowa's butterfly lady **Kathleen Ziemer** returns to the Expo this year to give you the inspiration and information you need to build a backyard butterfly habitat. She'll share her 20 years of secrets on what plants and flowers to grow, all while entertaining you with her stories about breeding and raising butterflies.

12:30 PM
Ornamental Grasses for Iowa Gardens
Ornamental grasses can be used in mass plantings, as backdrops to colorful flowering perennials and annuals, and as specimens in the garden. Join ornamental grass expert **Dr. Lois Girton** on an exploration of the many cultivars of *Miscanthus sinensis* and an introduction to many lesser-known, garden-worthy species. Dr. Girton will highlight those that have flourished at the Iowa Arboretum near Madrid.

The Microclimates in Your Yard
Ray Wolf, Science and Operations Officer for the National Weather Service and ISU Extension Master Gardener, will describe and explain the microclimates in your yard and how they can be utilized to ensure top performance of your garden plantings.

2:00 p.m.
Deer, Bulbs and Perennials
Linda Grieve, owner of Perennial Gardens and President of the Iowa Nursery and Landscape Association will discuss deer and the damage they cause to many landscape plants. She'll also help you find and choose plants and bulbs that are 'usually' left alone by deer.

Aronias: The Super Fruit!
Aronia berry expert **Ken Sailors** will talk about the emerging market for this new, healthy fruit crop, the health benefits these berries have, and how you can produce them on your own small farm.

For more information or to register visit *www.iowahort.org* or call 641-683-6260

www.iowahort.org

It's a green place to be!

All-Iowa Horticulture Exposition II

March 19-20, 2010
Bridge View Center
Ottumwa, Iowa

Supported by over 20 Iowa horticulture associations and organizations, the Expo offers diverse, multi-dimensional activities for the novice gardener as well as the professional.

IOWA STATE UNIVERSITY
University Extension

All-Iowa Horticulture Exposition Educational Seminars

Supported by over 20 Iowa horticulture associations and organizations, the Expo offers diverse, multi-dimensional activities for the novice gardener as well as the professional.

Exhibit Hall Hours:

Friday, March 19 – 11 a.m. to 4 p.m.
Saturday, March 20 – 9 a.m. to 2 p.m.

Demonstration topics:

• Vegetables • Nuts • Lawn care • Hypertufa troughs
• Lilies • Unusual plants • Butterflies

Admission Rates for the 2010 Expo:

Adults: $10 for 1-day pass or $15 for a 2-day pass;
Students: $5 for a 2-day pass; Kids under 12: free!

Friday, March 19

10:00 a.m.
All About Alliums
Learn how to get season-long bloom from easy-to-grow ornamental onions by combining early-, mid-, and late-season types in your yard. **Dr. Denny Schrock** of Meredith Publishing will show you how to combine them with other plants, discover the versatility of these deer-resistant beauties, and showcase top varieties for Iowa.

Building Your Small Farm Business with a Sound Marketing Plan
Penny Brown Huber, Executive Director of Grow Your Small Market Farm, will share her years of entrepreneurial experience to give you the tools to develop a marketing plan for your small farm business, including tips for success.

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Join Iowa's conifer guru **Gary Whittenbaugh** as he shares some exciting ideas on smaller trees, shrubs and other plants that work well with dwarf conifers. As Gary says "the best companion for a conifer is really another conifer so you may also get a peak at two or three choice conifers for your garden too." Attend this session and become a bona fide conifer companion. *Speaker back by popular demand!*

What to Buy, What to Plant
Ever wander which vegetables you should invest the time and energy to plant, and which you should just buy from a farmers' market instead? Vegetable gardening expert and kitchen garden maven **Jean Ann Van Krevelen** will break down the confusion and answer your questions about how to grow your own delicious vegetables and fruit in your own backyard. You'll also be able to buy signed copies of Jean Ann's brand new book *Grocery Gardening*.

1:00 p.m.
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Designing the Perennial Border

Award-winning author and nationally acclaimed garden designer **Stephanie Cohen** will demystify perennial design and help you plan the perennial garden of your dreams. She'll offer advice and tips on garden-tested design principles. Come hear "The Perennial Diva" dish the dirt and watch the soil fly!

2:30 p.m.
Designing Sustainable Landscapes
Sustainable landscapes can be gorgeous and good for the environment—it's all about how you approach the design. This session with **Dr. Ann Marie VanDerZanden**, professor of horticulture at Iowa State University, will provide concrete examples of how to design a new landscape or retrofit an existing landscape so the outdoor living space is both beautiful and environmentally sensitive.

Early, Warm-season Vegetable Production in High Tunnels
Dr. Hank Taber is a professor and extension vegetable specialist emeritus at Iowa State University. With over 40 years of experience in fresh market vegetable production, Dr. Taber will share his knowledge and insights on efficiently and profitably producing vegetable crops in high tunnels.

www.iowahort.org

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

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Diverse Trade Show Exhibitors | Expert Speakers | Hands-on Demonstrations

All-Iowa Horticulture Exposition II

March 19-20, 2010

Bridge View Center
Ottumwa, Iowa

It's a green place to be!

Featuring:
Internationally known plantsman, **Dan Heims**
Famed garden designer and author, **Stephanie Cohen**

www.iowahort.org

Diverse Trade Show Exhibitors | Expert Speakers | Hands-on Demonstrations

Presented by:

IOWA STATE HORTICULTURAL SOCIETY

IOWA STATE UNIVERSITY
University Extension

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

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It's a green place to be!

All-Iowa Horticulture Exposition II

March 19-20, 2010

Bridge View Center
Ottumwa, Iowa

- Diverse Trade Show Exhibitors
- Expert Speakers
- Hands-on Demonstrations

Featuring:

Internationally known plantsman, **Dan Heims**

Famed garden designer and author, **Stephanie Cohen**

www.iowahort.org

Presented by:

Iowa State Horticultural Society

Iowa State University
University Extension

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All-Iowa Horticulture Exposition II

"It's a green place to be"

March 19-20 2010
Bridge View Center—Ottumwa, IA

Join us for the second annual All-Iowa Horticulture Exposition, supported by over 20 Iowa horticulture associations and organizations. The Expo offers diverse, multi-dimensional activities, geared to the novice gardener, as well as the professional.

Expert Speakers

EXHIBIT HALL HOURS:

Friday, March 19—11:00 A.M. to 4:00 P.M.
Saturday, March 20—9:00 A.M. to 2:00 P.M.

KEYNOTE SPEAKERS:

Internationally known plantsman **Dan Heims**

Famed garden designer and author **Stephanie Cohen**

EDUCATIONAL PRESENTATIONS:

Denny Schrock	All about Alliums: 20 Weeks of Bloom in Your Garden
Gary Whittenbaugh	Conifer Companions
Ann Marie VanDerZanden	Sustainability
Nick Christians	Is it Bluegrass?
Hank Taber	Trickle Irrigation Demonstration
Bill Hanson	Nut Wizard
Gary Whittenbaugh	Building Troughs
Kathleen Ziemer	Butterflies
Ray Wolf	Climate Change and Gardening
Linda Grieve	Deer, Bulbs and Perennials
Sue Williams	Planting & Growing Lilies in Pots
Tom Wahl	Chestnuts
Steve and Caroline Bertrand	Cool Plants
Kathleen Ziemer	Butterflies
Penny Brown Huber	Marketing/Pricing
JeanAnn Van Krevelen	What to Buy, What to Plant
Hank Taber	Vegetable Production in High Tunnels
Bob Henrickson	GreatPlants
Lois Girton	Ornamental Grasses
Ken Sailors	Aronia Berries

Diverse Trade Show Exhibitors

www.iowahort.org

PRESENTED BY: Iowa State University University Extension

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

Iowa State Horticultural Society

4225 Fleur Drive, #135
Des Moines, IA 50321
www.iowahort.org

January 14, 2010

FOR IMMEDIATE RELEASE

Contact:
Kelly Norris, Iowa State Horticultural Society, (712) 621-5399, Kellydn@iastate.edu
Amber Bisinger, Extension External Relations Specialist, (319) 377-9839, Bisinger@iastate.edu

Speakers announced for All-Iowa Horticulture Exposition II

Home gardeners and professional horticulturists alike should mark their calendars for the All-Iowa Horticulture Exposition II on March 19-20, 2010 in Ottumwa, IA. The Expo, billed as the state fair of horticulture, is sponsored and coordinated by the Iowa State Horticultural Society (ISHS), and supported by over 25 in-state horticulture associations and Iowa State University Extension.

The ISHS is pleased to welcome international horticulture icons Dan Heims of Terra Nova Nurseries and Stephanie Cohen, award-winning author and garden designer to the Expo as keynote speakers. Stephanie will present "Designing the Perennial Border" on Friday afternoon at 1:00 PM. Dan will present the Saturday keynote at 10:00 AM on "Right Plant, Right Place." Both talks will be held in the 655-seat theatre at the Bridge View Center.

The ISHS will also sponsor a gardener's boutique that will feature Terra Nova introductions grown by the Iowa State Horticulture Club, many of which Dan will discuss in his lecture. Attendees may also purchase copies of Dan and Stephanie's books, as well those of other authors presenting at the Expo.

The ISHS is pleased to partner once again with Iowa State University Extension to present this gala exhibition of horticulture, which includes hands-on demonstrations, lectures and time for vendor interaction. Additional information about the Expo will be available at county extension offices in late January. For more information about the Expo please visit www.iowahort.org.

The ISHS was founded in 1866 for the purpose of promoting and encouraging horticulture and its related interests in Iowa through the collection and dissemination of information concerning production, marketing, and utilization of horticultural crops. The Iowa Code of Law states support for the ISHS from the Department of Agriculture and Land Stewardship (IDALS). The ISHS promotes the horticulture industry as a means of diversifying agriculture in Iowa.

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Iowa State Horticultural Society

4225 Fleur Drive, #135
Des Moines, IA 50321
www.iowahort.org

February 2, 2010

FOR IMMEDIATE RELEASE

Contact:
Kelly Norris, Iowa State Horticultural Society, (712) 621-5399, Kellydn@iastate.edu
Amber Bisinger, Extension External Relations Specialist, (319) 377-9839, Bisinger@iastate.edu

Children's garden, gardener's gift shop among activities at 2010 All-Iowa Horticulture Expo

The Iowa State Horticultural Society (ISHS) is pleased to partner once again with its 26 affiliate organizations and Iowa State University Extension to present a gala exhibition of horticulture, which includes hands-on demonstrations, lectures and diverse trade show exhibits showcasing the many facets of Iowa horticulture. The All-Iowa Horticulture Exposition II will be held March 19-20, 2010 in Ottumwa, IA at the Bridge View Center. A children's garden, gardener's gift shop, and forestry field day are among the activities planned for the upcoming Expo.

The children's garden will offer crafts and activities for children and families from 11:00 to 4:00 pm on Friday and 9:00 am to 2:00 pm on Saturday. The ISU Insect Zoo will expose children to the lives of insects for two hours each day and Iowa's Butterfly Lady Kathleen Ziemer will make a special appearance on Saturday afternoon from 1:30-2:00 pm. Kids will interact with live insects and butterflies and learn about their important role in our gardens.

The ISHS will sponsor a gardener's boutique that will feature plants introduced by Terra Nova Nursery and grown by the Iowa State Horticulture Club. Dan Heims, President of Terra Nova Nurseries will feature many of these plants in his Saturday keynote presentation. Attendees may also purchase copies of Dan's books, as well those of other authors presenting at the Expo including Stephanie Cohen, Ann Marie VanDerZanden, and Jean Ann Van Krevelen.

On Friday afternoon a forestry field day will be held in conjunction with the Expo. This partnership between the Iowa Nut Growers Association, Wapello County Conservation Board, Trees Forever, and the Iowa Woodland Owners Association will feature a tour of the Pioneer Ridge Nature Area and catered evening meal. Topics to be covered on the tour include invasive species control, timber stand management, nut propagation, and more. The tour bus will depart the Bridge View Center at 2:45 pm.

Make plans now to attend the 2010 All-Iowa Horticulture Exposition on March 19-20 at the Bridge View Center in Ottumwa. For information about hotel accommodations, maps, and programs at the Expo, please visit www.iowahort.org.

The ISHS was founded in 1866 for the purpose of promoting and encouraging horticulture and its related interests in Iowa through the collection and dissemination of information concerning production, marketing, and utilization of horticultural crops. The Iowa Code of Law states support for the ISHS from the Department of Agriculture and Land Stewardship (IDALS). The ISHS promotes the horticulture industry as a means of diversifying agriculture in Iowa.

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Iowa State Horticultural Society

4225 Fleur Drive, #135
Des Moines, IA 50321
www.iowahort.org

March 2, 2010

FOR IMMEDIATE RELEASE

Contact:
Kelly Norris, Iowa State Horticultural Society, (712) 621-5399, Kellydn@iastate.edu
Amber Bisinger, Extension External Relations Specialist, (319) 377-9839, Bisinger@iastate.edu

Come see horticulture on display at the 2010 All-Iowa Horticulture Exposition

The All-Iowa Horticulture Exposition II will be held March 19-20, 2010 in Ottumwa, IA at the Bridge View Center. The Iowa State Horticultural Society (ISHS) is pleased to partner once again with its 26 affiliate organizations and Iowa State University Extension to present this gala exhibition of horticulture, which includes hands-on demonstrations, lectures and diverse trade show exhibits showcasing the many facets of Iowa horticulture. A children's garden, gardener's gift shop, and forestry field day are among the activities planned for the upcoming Expo.

Join nationally known horticulturists Dan Heims and Stephanie Cohen and a well-rounded cohort of regional experts for an information-packed educational series. Topics include sustainable landscaping, vegetable production in high tunnels, small farm business development, gardening with microclimates, and much more. Hands-on demonstrations live on the trade show floor will demonstrate everything from how-to build trough gardens to identifying common turfgrass species.

The Expo is a perfect opportunity to introduce your kids to gardening with crafts and activities at the children's garden, including appearances by Iowa's Butterfly Lady Kathleen Ziemer and the ISU Insect Zoo.

Make plans now to attend the 2010 All-Iowa Horticulture Exposition on March 19-20 at the Bridge View Center in Ottumwa. For information about hotel accommodations, maps, and a complete schedule, please visit www.iowahort.org.

The ISHS was founded in 1866 for the purpose of promoting and encouraging horticulture and its related interests in Iowa through the collection and dissemination of information concerning production, marketing, and utilization of horticultural crops. The Iowa Code of Law states support for the ISHS from the Department of Agriculture and Land Stewardship (IDALS). The ISHS promotes the horticulture industry as a means of diversifying agriculture in Iowa.

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Iowa State Horticultural Society

4225 Fleur Drive, #135
Des Moines, IA 50321
www.iowahort.org

October 20, 2009

FOR IMMEDIATE RELEASE

Contact: Kelly Norris, Iowa State Horticultural Society, (712) 621-5399, kellydn@iastate.edu
Gary Twedt, Iowa State Horticultural Society, (641) 683-6260, gtwedt@lisco.net

Iowa State Horticultural Society announces 2010 All-Iowa Hort Expo, USDA Grant

The Iowa State Horticultural Society (ISHS) will sponsor the All-Iowa Horticulture Exposition II March 19-20, 2010 at the Bridge View Center in Ottumwa. Information about the upcoming Expo appears on the Society's website, www.iowahort.org.

The Expo received a major boost in the form of a recently announced $14,000 USDA Specialty Crops Block Grant. The grant will support marketing and education efforts for the Expo including nationally known keynote speakers Dan Heims and Stephanie Cohen. The ISHS hopes to expand programming this year to offer two keynote sessions, 12 lecture-style presentations, live demonstrations by Iowa experts, an expanded trade show, children and family activities, and an agricultural issues forum in an effort to create a "state fair" for horticulture.

The ISHS will once again partner with Iowa State University Extension to coordinate the event. Additional information about the Expo will also be available at county extension offices in the coming months.

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www.iowahort.org

All-Iowa Horticulture Exposition II

It's a green place to be!

March 19-20, 2010

Bridge View Center – Ottumwa, Iowa

Presented by

Iowa State Horticultural Society

Iowa State University
University Extension

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

Iowa State University Extension programs are available to all without regard to race, color, national origin, religion, sex, age, or disability.
SP 377d 1/2010

All-Iowa Horticulture Exposition II

March 19-20, 2010

Bridge View Center
Ottumwa, Iowa

It's a green place to be!

Expert Speakers

Diverse Trade Show Exhibitors

Supported by over 20 Iowa horticulture associations and organizations, the Expo offers diverse, multi-dimensional activities for the novice gardener as well as the professional.

Exhibit Hall Hours:

Friday, March 19 – 11 a.m. to 4 p.m.
Saturday, March 20 – 9 a.m. to 2 p.m.

Keynote Speakers

Internationally known plantsman, **Dan Heims**
Famed garden designer and author, **Stephanie Cohen**

Presentations

Denny Schrock	*All about Alliums: 20 weeks of Bloom in Your Garden*
Gary Whittenbaugh	*Conifer Companions*
Ann Marie VanDerZanden	*Sustainability*
Nick Christians	*Is It Bluegrass?*
Hank Taber	*Trickle Irrigation Demonstration*
Bill Hanson	*Nut Wizard*
Gary Whittenbaugh	*Building Troughs*
Kathleen Ziemer	*Butterflies*
Penny Brown Huber	*Marketing/Pricing*
JeanAnn Van Krevelen	*What to Buy, What to Plant*
Hank Taber	*Vegetable Production in High Tunnels*
Bob Henrickson	*Great Plants*
Lois Girton	*Ornamental Grasses*
Ken Sailors	*Aronia Berries*

www.iowahort.org

Presented by

Iowa State Horticultural Society — Founded 1866

Iowa State University
University Extension

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Internationally known plantsman, **Dan Heims**
Famed garden designer and author, **Stephanie Cohen**

Friday:

Denny Schrock: All About Alliums
Penny Brown Huber: Building Your Small Farm Business with a Sound Marketing Plan
Gary Whittenbaugh: Conifer Companions
Jean Ann Van Krevelen: What to Buy, What to Plant
Stephanie Cohen: Designing The Perennial Border
Ann Marie VanDerZanden: Designing Sustainable Landscapes
Hank Taber: Early, Warm-Season Vegetable Production in High Tunnels

Saturday:

Dan Heims: Right Plant, Right Place
Bob Henrickson: GreatPlants® for the Great Plains
Kathleen Ziemer: Building a Butterfly Habitat
Lois Girton: Ornamental Grasses for Iowa Gardens
Ray Wolf: The Microclimates in Your Yard
Linda Grieve: Deer, Bulbs and Perennials
Ken Sailors: Aronia Berry Production

Admission:

ADULTS: $10 for 1-day pass or $15 for a 2-day pass
STUDENTS: $5 for a 2-day pass
CHILDREN: under 12 free

Expert Speakers

Diverse Trade Show Exhibitors

Demo topics:

- Vegetables
- Nuts
- Lawn care
- Hypertufa troughs
- Lilies
- Unusual plants
- Butterflies

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Presented by

Iowa State Horticultural Society

Iowa State University
University Extension

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All-Iowa Horticulture Exposition II

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www.iowahort.org

Diverse Trade Show Exhibitors | Expert Speakers | Hands-on Demonstrations

Presented by:
Iowa State Horticultural Society
and
Iowa State University Extension

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www.iowahort.org

- Diverse Trade Show Exhibitors
- Expert Speakers
- Hands-on Demonstrations

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2010 All-Iowa Horticulture Exposition

March 19-20, 2010

FRIDAY

9:30 a.m.	Doors open
10:00 a.m-11:00 a.m.	Breakout Sessions (x2)
11:00 a.m.-4:00 p.m.	Trade Show
11:00 a.m.-11:30 a.m.	Live Demonstration on Trade Show Floor
11:00 a.m.-4:00 p.m.	ISHS Boutique (Plant sale, books)
11:30 a.m.-12:30 p.m.	Breakout Sessions (x2)
12:30-1:00 p.m.	Live Demonstration on Trade Show Floor
1:00 p.m-2:30 p.m.	Friday Keynote Session and ISHS Awards Ceremony
1:00 p.m-3:00 p.m.	ISU Insect Zoo appearance
2:30 p.m-3:30 p.m.	Breakout Sessions (x2)
3:30 p.m-4:00 p.m.	Live Demonstration on Trade Show Floor

SATURDAY

8:30 a.m.	Doors open
9:00 a.m.-2:00 p.m.	Trade Show
9:30 a.m.-10:30 a.m.	Saturday Keynote Session
10:30 a.m.-11:00 a.m.	Live Demonstration on Trade Show Floor
10:00 a.m.-12:00 p.m.	ISU Insect Zoo appearance
11:00 a.m.-3:00 p.m.	ISHS Boutique (Plant sale, books)
11:00 a.m.-12:00 p.m.	Breakout Sessions (x2)
12:00 p.m-12:30 p.m.	Live Demonstration on Trade Show Floor
12:30 p.m-1:30 p.m.	Breakout Sessions (x2)
1:30 p.m-2:00 p.m.	Live Demonstration on Trade Show Floor
2:00 p.m-3:00 p.m.	Breakout Sessions (x2)

Friday, March 19

10:00 a.m.
All About Alliums
Learn how to get season-long bloom from easy-to-grow ornamental onions by combining early-, mid-, and late-season types in your yard. Dr. Denny Schrock of Meredith Publishing will show you how to combine them with other plants, discover the versatility of these deer-resistant beauties, and showcase top varieties for Iowa.

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Penny Brown Huber, Executive Director of Grow Your Small Market Farm, will share her years of entrepreneurial experience to give you the tools to develop a marketing plan for your small farm business, including tips for success.

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What to Buy, What to Plant
Ever wander which vegetables you should invest the time and energy to plant, and which you should just buy from a farmers' market instead? Vegetable gardening expert and kitchen garden maven **Jean Ann Van Krevelen** will break down the confusion and answer your questions about how to grow your own delicious vegetables and fruit in your own backyard. You'll also be able to buy signed copies of Jean Ann's brand new book *Grocery Gardening*.

1:00 p.m.
Keynote Presentation:
Designing the Perennial Border
Award-winning author and nationally acclaimed garden designer **Stephanie Cohen** will demystify perennial design and help you plan the perennial garden of your dreams. She'll offer advice and tips on garden-tested design principles. Come hear "The Perennial Diva" dish the dirt and watch the soil fly!

2:30 p.m.
Designing Sustainable Landscapes
Sustainable landscapes can be gorgeous and good for the environment—it's all about how you approach the design. This session with **Dr. Ann Marie VanDerZanden**, professor of horticulture at Iowa State University, will provide concrete examples of how to design a new landscape or retrofit an existing landscape so the outdoor living space is both beautiful and environmentally sensitive.

Early, Warm-season Vegetable Production in High Tunnels
Dr. Hank Taber is a professor and extension vegetable specialist emeritus at Iowa State University. With over 40 years of experience in fresh market vegetable production, Dr. Taber will share his knowledge and insights on efficiently and profitably producing vegetable crops in high tunnels.

Saturday, March 20

10:00 a.m.
Keynote Presentation:
Right Plant, Right Place
Individual gardens can have deserts, swamps, and shady refuges. Internationally known plantsman **Dan Heims** of Terra Nova Nurseries will advise you on how to make good choices for problem spaces. Drawing from his life experience with thousands of plants, Dan not only presents plants as problem solvers, but offers good advice on how to keep them thriving.

11:00 a.m.
GreatPlants® for the Great Plains
The goal of the GreatPlants® program is to bring superior ornamental landscape plants into commercial production to meet the challenging growing conditions of the Great Plains. **Bob Henrickson**, Assistant Director of Horticulture Programs at the Nebraska State-wide Arboretum will discuss overlooked plants that are reliably hardy, easy to care for, and ornamentally worthwhile. Bob will also discuss exciting new releases through the GreatPlants® program. To date, GreatPlants® has released 31 new Plains-proven plants for beautiful landscapes.

How-to Build a Backyard Butterfly Habitat
Iowa's butterfly lady **Kathleen Ziemer** returns to the Expo this year to give you the inspiration and information you need to build a backyard butterfly habitat. She'll share her 20 years of secrets on what plants and flowers to grow, all while entertaining you with her stories about breeding and raising butterflies.

12:30 p.m.
Ornamental Grasses for Iowa Gardens
Ornamental grasses can be used in mass plantings, as backdrops to colorful flowering perennials and annuals, and as specimens in the garden. Join ornamental grass expert **Dr. Lois Girton** on an exploration of the many cultivars of *Miscanthus sinensis* and an introduction to many lesser-known, garden-worthy species. Dr. Girton will highlight those that have flourished at the Iowa Arboretum near Madrid.

The Microclimates in Your Yard
Ray Wolf, Science and Operations Officer for the National Weather Service and ISU Extension Master Gardener, will describe and explain the microclimates in your yard and how they can be utilized to ensure top performance of your garden plantings.

2:00 p.m.
Deer, Bulbs and Perennials
Linda Grieve, owner of Perennial Gardens and President of the Iowa Nursery and Landscape Association will discuss deer and the damage they cause to many landscape plants. She'll also help you find and choose plants and bulbs that are 'usually' left alone by deer.

Aronias: The Super Fruit!
Aronia berry expert **Ken Sailors** will talk about the emerging market for this new, healthy fruit crop, the health benefits these berries have, and how you can produce them on your own small farm.

Final Report: Iowa Fruit & Vegetable Growers Conference: Sustaining Our Environment, Our Livelihoods, and the Future of Our Industry

Project Title: Iowa Fruit & Vegetable Growers Conference: Sustaining Our Environment, Our Livelihoods, and the Future of Our Industry

Project Summary: The goal of this project was to provide an educational opportunity for Iowa fruit and vegetable farmers to consider sustainability in a very broad definition and to develop an understanding of how sustainability as a concept impacts their businesses now and into the future.

In the past, Iowa Fruit & Vegetable Growers Association (IFVGA) annual conferences have addressed marketing, food safety, and production issues, but have not emphasized the important role each plays in developing sustainability of the individual farm operation and of the industry as a whole.

The reasons IFVGA undertook this study are two-fold. First, a study conducted by the Leopold Center for Sustainable Agriculture and Iowa State University Business Analysis Laboratory in 2003 and 2004 indicated there was a strong undercurrent of interest by the consumer market for locally grown fruits and vegetables. Second, Iowa is a state better known for corn and soybean production, and increasing value on those commodities was increasing pressure for farmland use to be directed toward producing those commodities. It was important to show fruit and vegetable farmers that their businesses could be financially sustainable while also increasing their awareness of how they were tied into environmental sustainability…a concept that is mostly associated with Iowa's predominant crops of corn and soybeans.

Project Approach: IFVGA planned and conducted a program with sustainability-themed sessions for the association's annual two-day educational conference held on January 29-30, 2010. The program was developed with the assistance of members of the Iowa Fruit and Vegetable Association, faculty from Iowa State University, and specialists from the Value Added Agriculture program at ISU. Each of these groups covered different perspectives on the sustainability issues, and provided names of speakers who could knowledgeably speak about the topics.

The program topics on sustainability were scheduled for the plenary sessions, rather than the breakout sessions. This increased the likelihood that the 190 attendees would hear that information.

Nine plenary topics were planned, and each addressed one or more of the three sustainability issues. In the evaluations made by attendees of these sessions on a scale of 1-5, the average knowledge level about each of the topics increased. Only two topics increased less than 1 point (+.81 and +.94); the remaining topics had a knowledge increase of 1 point or more with the greatest recorded change of +1.43.

When attendees were asked about the likelihood of incorporating the information into their farm operations, there was hesitancy shown in their responses. On a scale of 1-5, with 1 being 'very likely,' 3 being 'unsure' and 5 being 'very unlikely,' the average for the responses ranged from 2.22 (likely to unsure) to 3.04 (unsure to unlikely).

Goals and Outcomes Achieved: The goal of this project was to provide an educational opportunity for Iowa fruit and vegetable farmers to consider sustainability in a very broad definition and to develop an understanding of how sustainability as a concept impacts their businesses now and into the future. All sessions were chosen for their potential to change the agricultural or business practice of individual producers and to increase the profitability of their farm businesses.

The activities that took place to provide the educational sessions were:

- The Iowa Fruit and Vegetable Growers worked with its partners, the Iowa Department of Agriculture and Lands Stewardship, Iowa State University Value-Added Agriculture Department, Visit Iowa (a tourism group with a strong focus on fruit and vegetable producers), and ISU's Fruit and Vegetable Working Group to develop a program and to invite speakers.
- The conference was marketed to growers through direct mail and through the newsletters, websites, and other mechanisms used by the partner groups. Over 1200 direct mail conference programs were mailed to individual farmers. News releases were distributed by the Iowa State Value-Added Agriculture Department to all media outlets used by the university. In addition, announcements and information were sent to affiliate organizations of the Iowa State Horticulture Society.

- The Iowa Fruit and Vegetable Growers & Marketers Conference was held on January 29-30 around the theme of sustainability. The 2-day conference included nine general sessions covering sustainability topics of general interest to growers and eight sets of breakout sessions split equally among four tracks: Beginning Farmer, Vegetable Production, Fruit Production, and Agritourism. Over 170 people attended the first day of the conference; over 150 attended the second day of the conference. Registrations represented over 190 unique individuals. (These totals do not include vendors.)
- Several educational publications were distributed to conference attendees. Conference packets included a wide variety of educational monographs reprinted by permission along with a selection of professional publications produced by Iowa State University in association with other Midwestern universities.
- Evaluations of the conference sessions were collected and analyzed
- All expenses for the conference were paid

This project had no long-term outcome measures incorporated in it; rather it was to create awareness about sustainability issues affecting fruit and vegetable farmers.

The projected expectations of this project and the results are in Table 1.

Table 1.

GOAL	EXPECTATION	ACHIEVEMENT
Attract fruit and vegetable farmers in Iowa.	150 attend the meeting	190 unique farmers attended
Increase knowledge level of presented topics	Increase knowledge level by one point (on a 5 point scale) for each sustainability topic presented.	Two topic areas recorded increased knowledge of less than one point; 7 topic areas had knowledge increases ranging from 1.0 to 1.43.
Express intention to put newly acquired knowledge into practice	Fifteen percent of attendees will indicate they are *'very likely'* to incorporate new knowledge into their enterprise; and 20% indicate they are *'likely'* to incorporate the knowledge	Of the nine sustainability topic areas, only one area failed to reach the 15% threshold for *'very likely'* to incorporate new knowledge into their enterprise. All met the 20% threshold that indicated they are *'likely'* to incorporate the knowledge

The topic areas with the actual outcomes on measuring knowledge attainment and likelihood of implementing the knowledge are shown in Table 2.

Table 2.

Topic Area	**Prior to** today's program, indicate your level of knowledge. (1=low level and 5=high level) Score represents average of responses.	**After** today's program, indicate your level of knowledge. (1=low level and 5=high level) Score represents average of responses.	After today's program, **how likely are you to incorporate** knowledge learned into your enterprise?(1=very likely, 5=very unlikely		
Green shading indicates goal was met. The first four topic areas below occurred on Day One; the next five occurred on Day Two.			Avg score	% Very Likely 15%=goal	% Likely 20%=goal
Six Tips for Success	2.46	3.46	2.68	17	34
Business Plan Analysis	2.63	3.85	2.30	25	45
Climate Change & Your Business	2.24	3.18	2.79	15	27
What Food Distributors Want	2.40	3.81	2.45	28	30
Changing Consumer Demand	2.73	4.07	2.22	26	52
Farm Succession	2.31	3.12	3.04	8	31
Making Farm Accessible	2.63	3.70	2.71	21	25
Starting from Scratch	2.57	4.00	2.54	29	29
Bus. Results of Start-up Farm	2.59	3.73	2.45	23	32

Across the board, for all tracks and general sessions, the prior knowledge responses averaged in the mid level of the scale for prior knowledge indicating participants were only moderately knowledgeable about the topic. For post session knowledge the scores were correspondingly on the mid to high level of the scale indicating a growth in knowledge as a result of the session. The difficulty is in interpreting the responses of the final question regarding how likely participants are to put their newly acquired knowledge into practice. Although the percentage goals were mostly met, the average scores were in the mid-range. This indicates that even though 39% to 78% were 'likely' to 'very likely' to use their new knowledge, a fair number of respondents were indicating they would not make changes.

Beneficiaries: The conference was successful in attracting 190 unique participants over the two days of the conference with daily total attendance over 170 people on day one of the conference and over 150 people on day two. These participants were all fruit and vegetable growers in Iowa; approximately 70% were IFVGA members. Thirteen of the participants self-identified as beginning farmers.

In addition, the conference included a tradeshow with 31 vendors. (Twenty-two were for-profit suppliers of horticultural products or services for fruit and vegetable growers. Eight were non-

profit organizations related to the industry.) The program allowed time for vendors to attend the sessions, and for those who did, they learned what their customers have interests in, and perhaps will bring those topic areas up while conducting sales or service deliveries to their clients.

Lessons Learned: It was important to have program partners participate in planning this conference because they understood the breadth of the issue. This helped us identify knowledgeable speakers and topic issues that were relevant to the audience.

It was very useful to use the general (plenary) sessions to address the sustainability issues. Once the farmers self-selected into their interest tracks during the concurrent sessions, it is unlikely they will shift tracks to hear a speaker in which they have only slightly more interest

Some sustainability topics did not resonate well with growers at the basic science level. As an example, the issue of climate change and its impact on local growers met with resistance that reflects the general view all farmers have of climate change. Since farmers are very attuned to the environmental factors that impact their crops, e.g., rainfall, temperature, microclimate, perhaps it would be more productive to address such issues from a practical, production level and the impacts climate change would have on the bottom line.

The other sustainability issue that appeared to have little traction was farm succession. This is a deeply personal issue, and a more personal one-on-one approach may have the biggest impact in getting farmers to think about and implement a succession plan for their farm operation.

Of course, receiving more responses to the survey would have been good to affirm that our results are truly representative of the group. On day one, 32% of participants returned the survey; but on day two, only 17% of participants returned a survey. This could have been handled differently with the surveys being picked up at the session door rather than asking attendees to drop them off at the registration desk on the way out.

Contact Person: This report was prepared by:

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and
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Executive Secretary, IFVGA (resignation effective 2-15-2010)
Ph 515-232-5801
Email: d2lewis@msn.com

Additional Information: Samples of the conference publicity, agenda, and packets received by attendees were submitted for the six month report.

The final budget of the conference is on following pages. The chart shown below shows the original grant allocation and the reallocations made to adjust for changes in costs associated with speakers, marketing, and printed materials. The third column shows expenses attributed to this grant. The final column shows the actual amounts spent on each of these three categories for the conference.

Sustaining our Environment…Grant

	Grant as written	As reallocated	Expenses Attributed to this Grant	Total Conference Expense
Speaker fees/honoraria	$4,000	$3000	$3000	$4,350
Promotion/Printing/Postage	$1,200	$1000	$1000	$1301
Printed materials	$400	$1,000	$994	$ 994
Total	$5,000	$5,000	$4994	$6,645

Holiday Inn Des Moines Airport/ Conference Center
6111 Fleur Drive
Des Moines, IA 50321
Reservations: 800-248-4013
Hotel Phone: 515-287-2400

Call by January 15, 2010 to get the special conference room rate of $89 plus tax.

This conference is being held in partnership with the Iowa Fruit & Vegetable Growers Association and Visit Iowa Farms.

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

Additional sponsors include the Iowa Fruit & Vegetable Growers Association, Iowa State University Value Added Agriculture Program, the Iowa Farm Bureau Federation and Hy-Vee.

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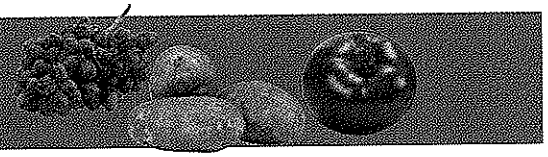
Iowa Fruit & Vegetable Growers & Marketers Conference

January 29-30, 2010
Holiday Inn Des Moines Airport/ Conference Center

Conference Agenda



Friday, January 29

7:30 am Registration/Continental breakfast

8:30 am Opening Remarks

9:00 am The big six for successful agritourism
Learn great foods tours & retreats
Business plan analysis & planning for short- and long-term goals

10:30 am Coffee break in exhibit area

11:00 am Breakout sessions
- Practical applications of food safety
- Growing & marketing herbs
- Table grapes
- Zoning issues

11:30 am Breakout sessions
- Practical applications in food safety, cont.
- Muskmelon variety trials
- Apple production using vertical axis
- Marketing locally grown produce

12:00 pm Lunch and exhibits

1:30 pm Changing climate in Iowa. Implications for fruit & vegetable growers

2:15 pm What food distributors are looking for

3:00 pm Break in exhibit area

3:30 pm Breakout sessions
- Small farm/Beginning farmer topic
- Tomato varieties, lessons learned in 2009
- Apple imprinting: A specialty for your orchard?
- Marketing from the ground up

4:00 pm Breakout sessions
- Adding melons to row crop/livestock operation, lessons learned
- Organic cucurbit crops: Managing pests and diseases with row covers
- Bushels of bad beetles
- Getting noticed

4:30 pm Reception in exhibit area with cider tasting

6:00 pm Dinner on your own

7:00 pm IDALS/IDPH Farmers Market Nutrition Program Training

Saturday, January 30

7:30 am Registration/Continental breakfast

8:30 am Capitalizing on changing consumer demands

9:30 am Farm succession, getting into and out of business

10:15 am IFVGA Annual Meeting

10:30 am Break in exhibit area

11:00 am Breakout sessions
- Transitioning business to new ownership
- Weed control for pumpkins & winter squash
- Blueberries, currants and gooseberries
- MarketMaker

11:30 am Breakout sessions
- Beginning farmers
- Giant pumpkins, an Iowa success story
- Primocane brambles
- Risk & liability issues in agritourism

12:00 pm Lunch and exhibits

1:15 pm Making your farm more accessible to visitors

1:45 pm A case in progress: Six years and counting

2:30 pm Report on beginning farmers study

3:00 pm Break

3:30 pm Breakout sessions
- Beginning farmers
- High tunnel
- Getting the most from the Honey Crisp craze
- More information on accessibility

4:00 pm Breakout sessions
- Beginning farmers
- Organic no-till vegetables
- Weed control and management in fruit
- Lessons learned through direct farm marketing

4:30 pm Adjourn

A mandatory training session will be required for all growers who plan to participate in the 2010 Farmers Market Nutrition Program. Growers who were trained previously must attend a training session to learn about the changes in the 2010 Farmers Market Nutrition Program. Training will include new requirements for the Farmers Market Nutrition Program as well as the addition of rules relating to accepting WIC Cash Value Benefits at farmers markets, new to the 2010 Farmers Market Nutrition Program. We are offering this training at this conference as a convenience to conference participants.

Registration Form

Name _____

Business Name/Organization _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

Each registration includes continental breakfasts, lunches and breaks.

Please check if a vegetarian meal is needed. _____

Please check if you have been a grower for less than two years. _____

Registration Fees

Friday, January 29 $55 x _____ = $ _____

Saturday, January 30 $55 x _____ = $ _____

Conference Total $ _____

Registration is $55 per day per person.
For more information or questions, please call Dorothy Lewis at 515-232-5801

Make checks payable to IFVGA
Mail registration form and check to:
ISU Value Added Ag Program
111 NSRIC
Ames, IA 50011-3310

WINTER 2009

IFVGA NEWSLETTER

UPCOMING EVENTS:

IOWA FRUIT & VEGETABLE GROWERS & MARKETERS CONFERENCE JANUARY 29-30, 2010

HIGHLIGHTS:

CONFERENCE 1

BOARD HAPPENINGS 2

NEW MEMBERS 2

CONFERENCE HIGHLIGHTS 3-4

WIC VENDOR TRAINING 5

ALL IOWA HORT EXPO 5

SWIFFI MEETING 5

ROW COVERS ON MUSKMELONS 6

REFLECTIONS ON THE 2009 GROWING SEASON 7

BEGIINNING APPLE GROWERS CONFERENCES 7

MUSKMELON CULTIVAR TRIAL 8

MEMBERSHIP APPLICATION 9-10

ISU HIGH TUNNEL WORKSHOPS 11

IOWA FRUIT & VEGETABLE GROWERS ASSOCIATION 515-232-5801 IFVGA@Q.COM

IOWA FRUIT & VEGETABLE GROWERS & MARKETERS CONFERENCE JANUARY 29-30, 2010

The 2nd annual Iowa Fruit & Vegetable Growers and Marketers Conference will be held on January 29-30, 2010. Please watch your mail for registration materials coming your way soon.

The theme of the conference will be **Sustaining our Environment, our Livelihoods, and the Future of our Industry.** In addition to our traditional production and technical fruit and vegetable breakout sessions, we will host speakers who will share ways we can think about sustainability across many different aspects of the fruit and vegetable industry.

Within the overall theme, we will also be sponsoring two new special topics tracks: Beginning Farmer and Agritourism. With the addition of these two tracks, the conference will offer both beginning farmers and seasoned professionals the opportunity to select those topics of greatest interest and to customize the conference to meet their needs. Check out some highlights of the 2-day program on pages 3 and 4.

Joining us as partners this year is Visit Iowa Farms. Assisting with support and financial assistance are the Iowa Farm Bureau Federation, the Iowa State University Value Added Agriculture Program, and Hy-Vee. In addition, funds for the conference speakers and marketing are being provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship.

New Location:
This year we will be meeting on Friday and Saturday at the Holiday Inn Airport/Conference Center on Fleur Drive, opposite the Des Moines International Airport. Why not call the Holiday Inn 515-287-2400 today to reserve your hotel room. The conference rate of $89 plus taxes will be available until January 15, 2010. Just mention the conference name to get the discount.

2009 Iowa FARMERS' MARKET CUSTOMER SUMMARY

Check out these interesting results released by National Agricultural Statistics Service (NASS), Iowa Field Office, and the U.S. Department of Agriculture:

http://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/2009CustomerSummary.pdf

http://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/2009VendorSummary.pdf

IOWA FRUIT & VEGETABLE
Growers Association

News Release

Contact: Greg Rinehart, IFVGA President, 515-290-3925, grinehart@hughes.net
or
Dal Grooms, Executive Secretary, 515-669-7177, dal.grooms@iafruitvegetablegrowers.org

IFVGA annual meeting explores expanding options for growers

The annual meeting of the Iowa Fruit & Vegetable Growers Association (IFVGA) will include several sessions on market opportunities that continue to develop for growers across the state. There is a growing interest in the local foods movement, as well as in larger retail distribution or even export opportunities. All will be part of the discussion at the IFVGA Growers and Marketers Conference and Annual meeting that will be held Jan. 29-30 at the Airport Holiday Inn in Des Moines.

In addition to marketing opportunities, Iowa's fruit and vegetable growers can also learn about production issues, equipment appropriate for their farm operations, and food safety. In addition, growers will have the opportunity to learn from each other at Roundtable Discussions on Friday evening. In addition, one of the Roundtable Discussions will focus on beginning farmers and resources available to them. Small-scale fruit and vegetable production has been an enticing entry point for young people interested in agriculture.

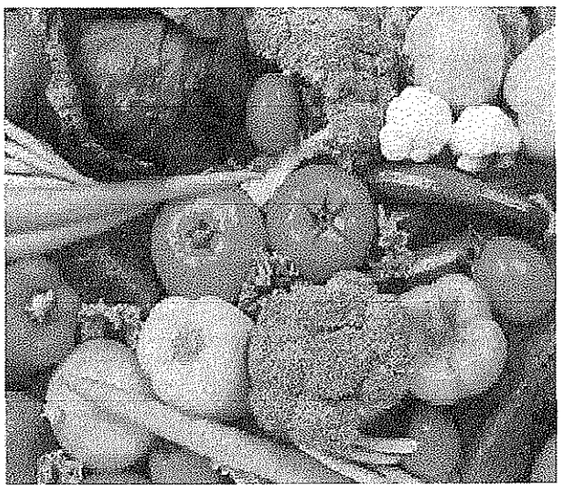
The conference will also include a trade show, featuring seed, equipment and packaging material suppliers

Preceding the IFVGA conference, a GAPs and On-Farm Food Safety workshop will be held at the same location on Jan. 27. Information about both meetings agendas and registration information is available at www.IAFruitVegetableGrowers.org. Questions regarding the conference can also be directed to Dal Grooms, IFVGA Executive Secretary, at 515-669-7177.

-30-

Upcoming Events

The 2010 Iowa Fruit & Vegetable Growers & Marketers Conference



January 29-30, 2010
Holiday Inn Airport Conference Center, Des Moines

Sustaining our Environment, our Livelihoods, and the Future of our Industry

Opportunities for Fruit and Vegetable Growers and Marketers.

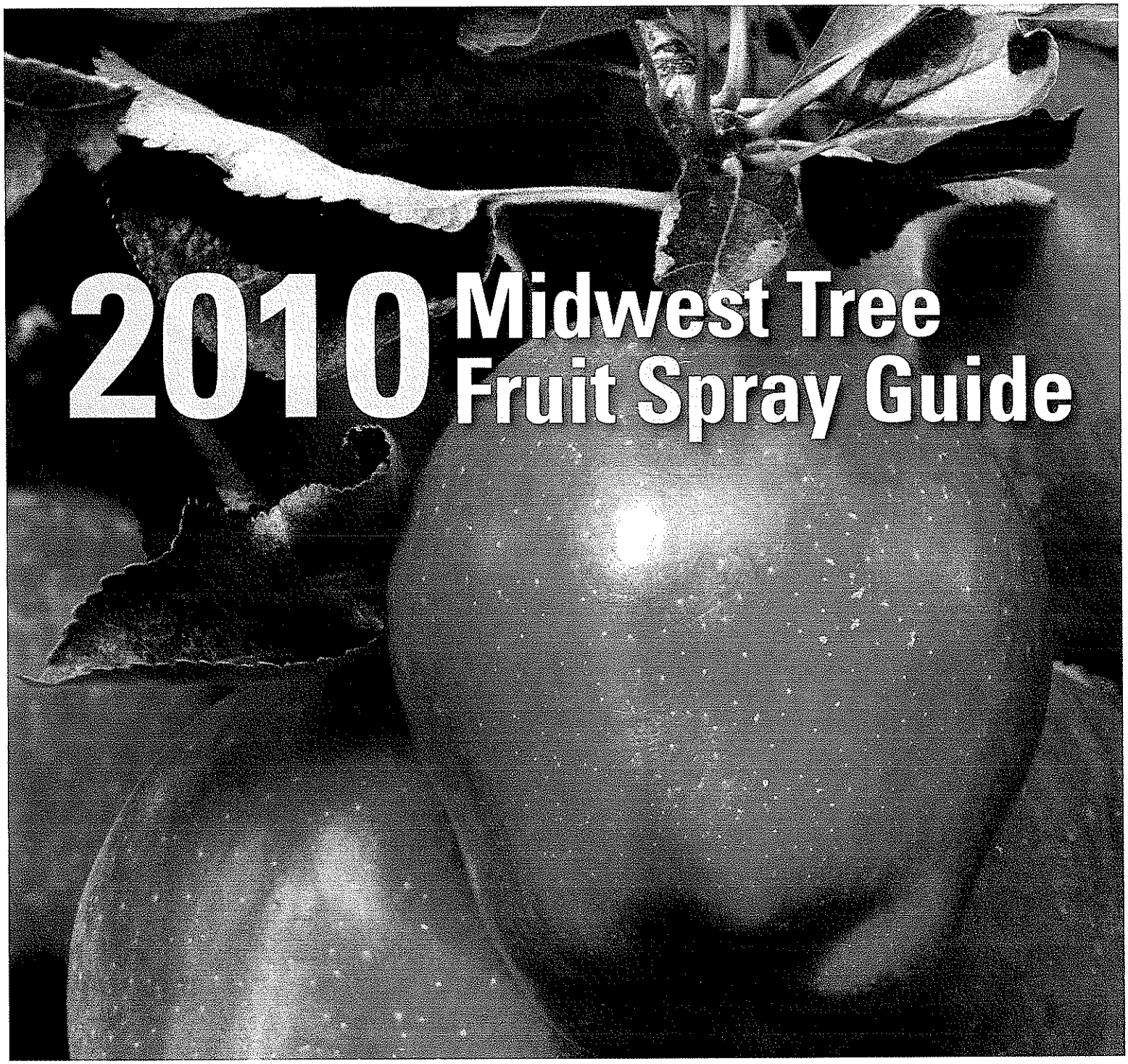
Conference Program and Registration Form

For conference registration information call: 515-232-5801.

For hotel room reservations call: 515-287-2400
Mention Iowa Fruit & Vegetable Growers Association to get the conference rate.

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

Additional sponsors include the Iowa State University Value-Added Agriculture Program, the Iowa Farm Bureau Federation, and HyVee.



2010 Midwest Tree Fruit Spray Guide

Illinois
University of Illinois Extension
ICSG4-10

Indiana
Purdue Extension
ID-168

Iowa
Iowa State University Extension
PM 1282

Kansas
Kansas State University Agricultural Experiment Station and Cooperative Extension Service
S-146

Kentucky
University of Kentucky Cooperative Extension Service
ID-92

Missouri
University of Missouri and Missouri State University
MP651

Ohio
Ohio State University Extension
506A2

Wisconsin
University of Wisconsin Cooperative Extension Service
A3314

2010 Midwest Small Fruit and Grape Spray Guide

Illinois
University of Illinois Extension
ICSG3-10

Indiana
Purdue Extension
ID-169

Iowa
Iowa State University Extension
PM 1375

Kansas
Kansas State University
Agricultural Experiment Station
and Cooperative Extension
Service
S-145

Kentucky
University of Kentucky
Cooperative Extension Service
ID-94

Missouri
University of Missouri
Missouri State University
MX377

Nebraska
University of Nebraska –
Lincoln Extension

Ohio
Ohio State University Extension
506B2

Oklahoma
Oklahoma State University
Oklahoma Cooperative Extension
Service
E-987

West Virginia
West Virginia University
Extension Service
Publication 865

Wisconsin
University of Wisconsin-Extension
A1934

Midwest Vegetable Production Guide for Commercial Growers

2010

Illinois
University of Illinois Extension
C1373-10

Indiana
Purdue Extension
ID-56

Iowa
Iowa State University Extension
FG 600

Kansas
Kansas State University, K-State Research and Extension

Minnesota
University of Minnesota Extension
BU-07094-S

Missouri
University of Missouri Extension
MX384

IFVGA Annual Meeting Welcomes Beginning Farmers, Agritourism Interests

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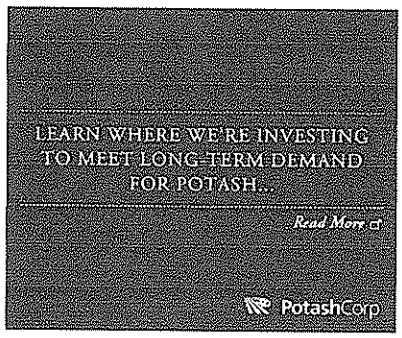
Iowa Fruit and Vegetable Growers Association annual meeting is set for Jan. 29-30 in Des Moines.

Compiled by staff

Published: Jan 23, 2010



The past decade has delivered some changes in Iowa agriculture, including more farmers being involved in fruit and vegetable production. That's why the Iowa Fruit and Vegetable Growers Association will include a distinct track for beginning farmers during its 2010 annual meeting and conference, Jan. 29-30 at the Holiday Inn Des Moines Airport/Conference Center.

The conference is being organized jointly by the Iowa Department of Agriculture and Land Stewardship and Iowa State University Value Added Ag Program's "Visit Iowa Farms" project. Both are providing funds and staff to help educate beginning farmers about the opportunities in fruit and vegetable production.

The 2010 IFVGA conference theme is "Sustaining Our Environment, Our Livelihoods, and the Future of Our Industry" and the conference includes the educational track for beginning farmers, sessions on both fruit and vegetable production issues, food safety, marketing produce and marketing experiences by creating farmer-to-consumer relationships.

A number of topnotch speakers and presentations on tap

Ann Dougherty, an agri-culinary tour operator from Rockford, Ill., is one of the keynote speakers on the morning of Jan. 29. Dougherty organizes food tours through six states in the Midwest that show links between farming, cooking and the environment.

The second keynote speaker on Friday morning is Chris Blanchard of Rock Spring Farm in Decorah. Blanchard managed vegetable farms from Wisconsin to California before settling in Northeast Iowa to start an organic vegetable farm. His topic is business plans for short and long-term goals.

On Saturday morning, the keynote speaker is Darlene Knipe, marketing specialist at the University of Illinois. Knipe is founder of the Food MarketMaker program, an Internet portal that helps value-added ag producers find their markets. Her topic is capitalizing on changing consumer demands.

Farmers Market Nutrition Program training session offered

Farmers who plan to participate in the 2010 Farmers Market Nutrition Program can attend the mandatory training session offered by the Iowa Departments of Public Health and Ag and Land Stewardship on Friday evening.

Information about the conference is online at www.iafruitvegetablegrowers.org. Register by calling Dorothy Lewis, IFVGA executive secretary at (515) 232-5801.
Funds for the beginning farmer track of the conference were provided by the USDA Specialty Crops Block Grant Program through the Iowa Department of Agriculture and Land Stewardship. Additional funding was provided by Hy-Vee and Iowa Farm Bureau Federation.

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Funds available to encourage development of new methods to grow produce locally in conservation-friendly way.

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Kolmer was dean of Iowa State University College of Agriculture from 1973 to 1987.

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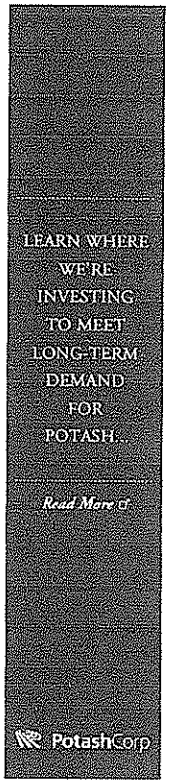
IFVGA Annual Meeting Welcomes Beginning Farmers, Agritourism Interests
USDA Redefines Term 'Actively Engaged' In Farming
Adjust Fertilizer Application Rates as Crop Yields Increase
ISU Chosen to Help Map Corn Genome
How Are SURE Crop Disaster Payments Figured?
Dow AgroSciences Confirms Precise Genome Modification in Maize
Sta-bil Now Available for Diesel Fuel
What Is A Killing Frost?
Anhydrous Ammonia Application and Planting Corn
Choose Wisely When Selecting Corn Hybrids to Plant in 2010



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ISU horticulture student researches printing messages on apples

By: ISU Agriculture and Life Sciences Communications Service
Published: Friday, January 15, 2010 2:03 PM CST

Apples imprinted with messages or logos could be a specialty product for Iowa's apple growers, according to Iowa State University horticultural research.

Brandon Carpenter, a junior majoring in horticulture, conducted the project with the supervision of Gail Nonnecke, University Professor of horticulture. Carpenter will present the results to apple growers at the Iowa Fruit and Vegetable Growers Association annual conference, which is scheduled for Jan. 29 and 30.

Placing food-grade stickers on apples blocks sunlight to form the message while the rest of the apple's skin turns red with light exposure. Bags cover the apples prior to applying the stickers to limit light to the fruit and to reduce damage from disease or insects.

Carpenter began the project last spring by covering 95 developing apples with double-layered paper bags made especially for producing apples. He was allowed to use apple trees located at Iowa State's Horticulture Research Station near Ames where he worked as an intern.

Later in the growing season, he placed stickers on 35 of the apples. At harvest, about half of the apples were judged good enough to be sold.

"This may seem like a low percentage, but I believe I learned enough to reduce losses in the future. I also believe this would be a feasible practice in Iowa orchards," he said.

Nonnecke said apple imprinting could provide a specialty product for orchardists to enhance the marketing of fruit baskets and gift boxes.

'The practices are easy to adopt to Iowa apple cultivars," she said. "Fruit growers interested in producing imprinted apples should experiment to find the best procedures for their orchard."

Carpenter will present his project's results 3:30 p.m. Jan. 29 at the conference, which is located in at the Fleur Drive Holiday Inn in Des Moines. More information on the association is available at: http://www.iafruitvegetablegrowers.org /index.html" href="http://www.iafruitvegetablegrowers.org /index.html">http: //www.iafruitvegetablegrowers.org/index.html.

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Iowa State student imprints messages on apples

Published on 01/18/2010 11:16am By Andy Nelson

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An Iowa State University horticulture student has developed a technology for imprinting messages or logos directly onto apples.

Brandon Carpenter, a junior at Iowa State, Ames, placed food-grade stickers on apples that blocked sunlight, and so formed a message while the rest of the apple's skin turned red with light exposure, according to a university news release.

Carpenter, who was supervised in the project by horticulture professor Gail Nonnecke, covered the apples with bags before applying the stickers to limit light to the fruit and to reduce damage from disease or insects.

In one trial, Carpenter placed stickers on 35 apples. At harvest, about half were deemed to be good enough for sale.

Carpenter will present his findings at the Iowa Fruit and Vegetable Growers Association's annual conference Jan. 29-31 in West Des Moines.

Tags: apples, technology

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Iowa Department of Agriculture and Land Stewardship
Specialty Crop Block Grant Program
Final Report for Nov. 1, 2009 to Oct. 31, 2010 Funds
Prepared Nov. 1, 2010

Increased production and marketability of specialty fruit crops grown in a tunnel structure

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Project Summary

Strawberries and raspberries are important high-value crops for commercial growers in Iowa. Extending the season of production by using a tunnel structure can produce more marketable fruit from earlier and later seasons of production. Tunnel structures produce higher quality fruit in comparison to fruit that may be exposed to excessive rainfall, wind, a shorter season of production, or potential frost in the spring or fall in Iowa's climate. This trial is the first research project in Iowa to investigate the effects of growing day-neutral strawberry production in tunnel structures for fresh local produce

Site preparation began in November 2009 and construction of the tunnel structures was completed in March 2010 at the ISU Horticulture Research Station. Day-neutral strawberry plants (cultivars: Albion, Seascape, and Tribute) were established in June 2010 in different layered polyethylene mulches (silver and black) both under the tunnel structures and in the field with no cover to determine the best techniques for strawberry production. Additional treatments included removing flowers six or 10 weeks after planting. Plants were maintained throughout the summer and harvested throughout the fall. Variables were collected during harvest and data analyzed for total yield, plant biomass, soluble solids concentration, acid concentration, and water content.

Total berry yield and plant biomass were higher when grown in a tunnel structure compared to field plots with no cover treatments. For the cultivars Albion and Seascape, production was higher when plants were grown on silver mulch over black mulch with the silver mulch removed when temperatures were below 60 ℉ and flowers removed for 6 weeks after planting. Production was highest in the cultivar Tribute when grown on silver mulch only and flowers removed for 6 weeks. Fruit chemistry analyses showed that percentage soluble solids concentration was 1 percent greater in strawberries from field plots with no cover than plots in tunnel structures. Initial pH of strawberries was similar among all treatments. Lower titratable acids were found in strawberries from plots in the tunnels compared to the field plots in the cultivars Albion and Tribute. Percentage water loss from strawberry fruit was less during postharvest when plants were grown in tunnel structures than field plots. Percentage total water mass was greater in strawberries from plots in tunnel structures.

Information collected from this study has been summarized into a report that will be published in the ISU Horticulture Research Station annual progress report for 2010. The progress report will be available to people online at http://www.ag.iastate.edu/farms/progress_report.php (see "Horticulture Station"), and in print form. Information on fruit production in tunnels structures has been summarized into a factsheet and will be available at the ISU horticulture website www.hort.iastate.edu. We will present the results of the findings and "lessons learned" during the Annual Iowa Fruit and Vegetable Conference in January of 2011.

Project Approach

In December of 2009, land was cleared and prepared for the construction of three tunnel structures (14 ft wide x 36 ft long x 10 ft high, FarmTek, Dyersville, IA) and completed in March of 2010 at the ISU Horticulture Research Station. Soil samples were taken in the field plots and tunnel plots and were fertilized to standardize the soil. The plots were tilled to a depth of 6 inches to incorporate the fertilizer and prepare the strawberry beds.

Dormant, day-neutral strawberry crowns of cultivars Albion, Seascape, and Tribute were planted into the tunnel structures and the field plots in early June. Eighteen crowns were planted in the treatment mulch previously applied, in a triple row spaced 10" apart in each plot. Cultivars were randomly blocked in 3 replications, 1 replication in each tunnel. Polyethylene rows were spaced 6' on center. Production techniques included the following treatments on all three cultivars: 1) silver mulch only with flowers removed for 6 weeks after planting, 2) silver mulch over black mulch, black mulch removed when soil temperature dropped below 60°F with flowers removed for 6 weeks after planting, 3) silver mulch only with flowers removed for 10 weeks after planting, 4) silver mulch over black mulch, black mulch removed when soil temperature dropped below 60°F with flowers removed for 10 weeks after planting.

Yield data were collected when fruit ripened in August until the end of October. Yield variables included total yield, berry number, and average berry size. Six random subsamples were collected from each of the production treatments at harvest. Three of the samples were stored in a refrigerator at 4°C for one week and average weight loss was determined. The remaining three samples were blended and the juice was extracted to determine soluble solids, pH, and acid content.

The project of day-neutral strawberries grown in a tunnel structure with differing mulches and flower removal techniques has been introduced to more than 1200 people attending tours at the Horticulture Research Station. Results and discussion of the study with recommendations for future day-neutral strawberry production will be published in the ISU Horticulture Research Station annual progress report for 2010. The progress report will be available to people online at http://www.ag.iastate.edu/farms/progress_report.php or in print form from the Horticulture Research Station for visitors and during the Iowa Fruit and Vegetable Growers Conference in January 2011. We will present the results of the findings and "lessons learned" during the Annual Iowa Fruit and Vegetable Conference in January of 2011.

A significant role was played by all project partners: Faculty and students in the Department of Horticulture at Iowa State University worked with the staff of the Research and Demonstration Farms of the College of Agriculture and Land Stewardship to establish the tunnel structures and field plots for the research project and field days. The Iowa Fruit and Vegetable Growers Association provided support and input regarding the project's topic and assisted in the dissemination of the research results to Iowa specialty crop growers by providing times for reports at their annual conferences.

Goals and Outcomes Achieved

Planned outcome: Approximately 150 Iowa fruit and vegetable growers will learn about the potential to produce specialty fruit crops in Iowa from presentations and field days.

Achievement: A presentation was given to approximately 50 attendees at the 2010 IFVGA conference that introduced small fruit culture and its potential production in tunnels. The All-Horticulture Field Day held at the Research Station on July 29, 2010 showed ~210 attendees the research project and its potential for adoption in Iowa. In addition, over 1,200 visitors to the ISU Horticulture Station, which included 400 vocational agriculture students and agricultural professionals, received a presentation about day-neutral strawberry

production in a tunnel structure and its potential for specialty crop production. Our project summary will be presented at the 2011 IFVGA conference.

Planned outcome: An increase in the availability of fresh, Iowa-grown specialty fruit will be available to Iowa consumers.

Achievement: Summarized research results will be published in the 2011 ISU Horticulture Station progress report in print available from the station or at http://www.ag.iastate.edu/farms/progress_report.php. Availability will begin January 2011.

Specialty crop growers will be informed about production techniques to grow fresh strawberries in tunnel structures in Iowa. If production practices are adopted, an increase in the availability of fresh, Iowa-grown strawberries will be achieved. Best management practices for strawberry production are being summarized and will be shared via a fact sheet summary on the web (ISU Horticulture website). The fact sheet also will include summarized results and discussion of raspberry production in tunnel structures, which was funded in 2009 from the Iowa Department of Agriculture and Land Stewardship. This fact sheet will be finalized in December when final harvest data are analyzed (fruit harvest continued through October). Research results are included in additional information (see Appendix).

Beneficiaries

Iowa fruit and vegetable growers – New production techniques are available to extend the growing season of specialty fruit crops, to improve fruit quality, and to become competitive in local foods.

Beginning farmers and agriculture students – Vocational agriculture students and teachers, beginning farmers and growers producing specialty fruit crops learned about the potential of producing day-neutral strawberries in the late summer and fall in the tunnel as an alternative specialty enterprise to produce high quality fruit.

Consumers – There will be a potential increase in the supply of fresh local strawberries during the off-season by growers producing day-neutral strawberries in a tunnel structure.

Lessons Learned

Tunnel structures increased strawberry yield compared to field plots with no cover. Protection of the tunnel cover assisted in increased plant growth and flower production. Increased temperatures under the black polyethylene mulch may assist in achieving more yield during the cooler part of the season. Labor to remove the additional silver mulch layer may reduce the profit potential of the technique and more research should investigate mulch color and its effects on plant growth, development and cost. Treatments to investigate the length of time that flowers remain on the plants after establishing showed the most effective length was a six-week period compared to a ten-week period, because it resulted in earlier production in the season. Data are being analyzed to find when peak production is observed from the different flower removal and mulch treatments. Growers may want to diversify their production techniques, such as length of flower removal, to vary peak production dates.

Lower soluble solids concentration and titratable acids may be a result of dilution from higher water content in berries grown in tunnel structures. Informal evaluations of strawberry taste showed interest in all cultivars because the strawberries were fresh and

available during the off-season. Berry size was still considered important because the smaller berries of 'Tribute' were considered as less desirable than the larger berries of 'Seascape' and 'Albion'. Since strawberries are considered a highly perishable food item, postharvest respiration is a concern. Decreased water loss of strawberries grown in tunnel structures increased their shelf life resulting in greater potential for fruit producers to grow day-neutral strawberries for local markets.

Production of day-neutral strawberries has potential in Iowa for increased off-season fruit production. Growing the strawberries in tunnel structures increases yield and produces a consistent, high quality, high value, and marketable product that has potential in Iowa's specialty crop market. Increased availability of specialty crops, such as day-neutral strawberries, in local markets will also be beneficial to consumers by providing healthy, locally grown food for consumption.

Contact Person

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Additional Information

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Appendix 1 - Detailed budget of expenditures

Date	Total hours worked	IDALS expense	Cash match	Tasks completed
Construction				
11/1/09	3	75.00		Researching prices and ordering of tunnel structures
11/2/09	8	200.00		Removal of debris from potential site
11/5/09	6	150.00		Continued removal of debris from potential site
11/12/09	4	100.00		Removing old posts and preparing site
11/17/09	2	50.00		Till and prepare site
12/1/09	3	75.00		Measure and plot designated areas
12/2/09	16	400.00		Pound end poles and side staked for tunnel structure
12/7/09	3.5	87.50		
1/11/10	7	175.00		Constructed hoops
1/12/10	7	175.00		Continued to construct hoops
1/13/10	7	175.00		Continued to construct hoops
1/14/10	7	175.00		Setup cross bars (top) for tunnel structure
1/15/10	5	125.00		Continued to setup cross bars (top) for tunnel structure
2/18/10	6	150.00		Placed side boards for tunnel curtain
2/19/10	6	150.00		Continued to place side boards for tunnel curtain
2/26/10	4	100.00		Placed channels on side boards for tunnel curtain
3/2/10	3	75.00		Continued to placed channels on side boards for tunnel curtain
3/3/10	16	400.00		Constructed tunnel ends
3/4/10	10	250.00		Continued to construct tunnel ends
3/5/10	10	250.00		Continued to construct tunnel ends
3/26/10	32	800.00		Applied plastic layer to tunnels
3/29/10	28	700.00		Finished plastic and placed base boards
3/30/10	12	300.00		Finished plastic and base boards
5/19/10	4	100.00		Placed curtain mechanisms
5/20/10	12	300.00		Finished placing curtain mechanisms
5/21/10	15	375.00		Tightened plastic layer on top of tunnels
10/4/10	20		500.00	Applied drainage tile around tunnels
Subtotal		5912.5	500.00	

Non-Construction				
11/18/09	2	16.00		Initial soil sampling within structures
11/18/09	4	32.00		Soil sample processing
4/1/10	2	16.00		Initial soil sampling in field plot
4/1/10	4	32.00		Soil sample processing
4/22/10	6	48.00		Fertilizer calculations and sourcing
4/27/10	8	64.00		Fertilizer measuring and application
4/28/10	7	56.00		Completed fertilizer applic. and soil prep
4/30/10	8	64.00		Plot setup and planning / plant ordering
6/1/10	2	16.00		Tilled soil for strawberry beds
6/2/10	24	192.00		Prepared and laid plastic mulch
6/4/10	60	480.00		Planted and watered strawberry plants
6/7/10	8	64.00		Set up trickle irrigation for plots
6/4 – 8/31	44	352.00		Check water and maintained tunnels
9/1 – 10/19	24.5		196.00	Check water and maintained tunnels
6/14 – 8/31	176	1408.00		Weeded in field and tunnel plots
6/14 – 8/31	88	704.00		Removed flowers and runners
8/6/10	6	48.00		Harvest and collect data
8/12/10	6	48.00		Harvest and collect data
8/17/10	6	48.00		Harvest and collect data
8/20/10	6	48.00		Harvest and collect data
8/23/10	6	48.00		Harvest and collect data
8/26/10	6	48.00		Harvest and collect data
8/30/10	6	48.00		Harvest and collect data
9/2/10	6	48.00		Harvest and collect data
9/7/10	6	48.00		Harvest and collect data
9/10/10	6	48.00		Harvest and collect data
9/13/10	6	48.00		Harvest and collect data
9/16/10	6	15.50	32.50	Harvest and collect data
9/20/10	6		48.00	Harvest and collect data
9/23/10	6		48.00	Harvest and collect data
9/27/10	6		48.00	Harvest and collect data
10/1/10	6		48.00	Harvest and collect data
10/5/10	6		48.00	Harvest and collect data
10/8/10	6		48.00	Harvest and collect data
10/11/10	6		48.00	Harvest and collect data
10/15/10	6		48.00	Harvest and collect data
10/18/10	6		48.00	Harvest and collect data
10/27/10	6		48.00	Harvest and collect data
10/28/10	8		64.00	Laboratory analysis of berry samples
10/29/10	8		64.00	Laboratory analysis of berry samples
10/29/10	4		32.00	Collection of plant biomass
10/29/10	8		64.00	Plot cleanup (mulch, irrigation, and till)
Subtotal		4087.50	932.50	

Supplies				
11//09			5,409.18	3 tunnel structures (FarmTek)
12/7/09			68.28	Hardware for structures (Fastenal)
11/30/09			667.00	Tunnel vents (Ken-Bar)
3/24/10			140.00	Tunnel vent (Ken-Bar)
4/16/10			305.00	Strawberry plants (Sakuma Market)
6/21/10			30.00	Replacement plants (Sakuma Market)
10/29/10			75.39	Laboratory supplies (ISU Chem Lab)
10/7/10			105.20	Harvest containers (Monte Packaging)
Subtotal		0	6,800.05	

Equipment Rental				
			1160.00	Tractor rental ($580 / week *2)
			220.00	Tiller rental ($55 / day *4)
			110.00	Plastic layer ($55 / day *2)
			627.30	Fuel for equipment ($2.46 / gal * 255)
			150.00	Tile trencher rental ($50 / day *3)
			150.00	Rural water ($12.50 / 1000 gal *12)
			187.50	Cooler rental ($62.50 per month *3)
Subtotal		0	2,604.80	

Program Income		
Sale of fruit	$600	Approximately 400 lbs of fruit sold at $1.50 per pound
All funds from sale of fruit were used to support student labor for the project to assist with harvesting, plant sampling, and plant analyses in October 2010.		

	IDALS expense	Cash match
Total expenditures	$10,000	$10,837.35

Appendix 3 – Photos of project

Figures 1. Placing posts in the ground before it freeze in early December 2009.

Figures 2. Minitunnel hoops completely constructed and placed in site before heavy snow fall in mid January 2010.

Figures 3. Construction of minitunnel ends and wood side panels for tunnel curtains in mid March 2010.

Figure 4. Specialty crop growers visiting at the All-Horticulture Field day in July 2010.

Figure 5. Student participants and Ag. Specialist in front of tunnel structures.

Figure 6. Field comparison plot of day-neutral strawberries the Hort Station in June.

*Appendix 4 – **Preliminary** Horticulture Station progress report. Final report available January 2011.*

Increased production and marketability of day-neutral strawberries grown in a tunnel structures

Dennis Portz, agriculture specialist
Research Farms
Gail Nonnecke, university professor
Department of Horticulture

Introduction

Day-neutral strawberries are high-value specialty fruit crops for commercial growers in Iowa. Day-neutral strawberries bear fruit in the fall and provide high value, off-season fruit. Tunnel production hastens production during the growing season, promoting higher yield and increased berry quality by protecting fruit from wind and rain. The primary goal of this project was to evaluate differences in total yield and plant biomass of day-neutral strawberries grown inside a tunnel structure and in the field with no cover. A secondary goal was to evaluate fresh and postharvest berry quality of day-neutral strawberries grown inside a tunnel structure and in the field with no cover.

Materials and Methods

In June 2010, crowns of the day-neutral strawberry cultivars Albion, Seascape, and Tribute were planted in three replicated tunnel structures and field plots at the Horticulture Research Station, Ames, IA. Strawberry tunnel structure plots were maintained in a 14' x 36' tunnel structure setup in 2010 (Farmtek, Dyersville, IA). Strawberry crowns were spaced 10 inches within the row in a triple row on polyethylene mulch treatments (Pliant Corporation, GA). Rows were spaced six feet apart. Three replications of each cultivar were established for the four treatments: 1) polyethylene silver mulch on white with flowers removed for 6 weeks after planting, 2) polyethylene silver mulch on white over a layer of black polyethylene with flowers removed for 6 weeks after planting and the silver mulch was removed after the soil temperatures were less than 60 °F, 3) polyethylene silver mulch on white with flowers removed for 10 weeks after planting, 4) polyethylene silver mulch on white over a layer of black polyethylene with flowers removed for 10 weeks after planting and the silver mulch was removed after the soil temperatures were less than 60 °F. Runners were removed throughout the season. Water was provided at 1" per week by rainfall or through rural water irrigation.

Data variables collected included yield, number, and average size of berries. Berry quality of fresh fruit was measured by percentage soluble solids concentration, intial pH, titratable acids expressed as percentage anhydrous citric acid, percentage water loss after storage for one week, and percentage total water mass. Plant biomass weight was collected after harvest was completed.

Results

Total berry yield and plant biomass was higher when grown in a tunnel structure compared to field plots with no cover treatments. Production was highest in the cultivars Albion and Seascape when grown on silver mulch over black mulch with flowers removed for 6 weeks after planting and silver mulch removed when temperatures were below 60 °F. Production was highest in the cultivar Tribute when

grown on silver mulch only and flowers removed for 6 weeks after planting. Plant biomass was similar among mulch and flower removal treatments. Berry quality showed average berry size 'Albion' > 'Seascape' > 'Tribute'. Percentage soluble solids concentration was 1 percent greater in strawberries from field plots with no cover than plots in tunnel structures. The cultivar Albion had the greatest percentage soluble solids concentration compared to the cultivars Seascape and Tribute. Initial pH of strawberries was similar among all treatments. Lower titratable acids were found in strawberries from plots in the tunnels compared to the field plots in the cultivars Albion and Tribute. Percentage water loss from strawberries was less during postharvest in plots of tunnel structures than field plots. Percentage total water mass was greater in strawberries from plots in tunnel structures.

Acknowledgements

We thank the Iowa Department of Agriculture and Land Stewardship for funding through the Specialty Crop Block Grant program.

Table 1. Total yield per linear foot of row of day-neutral strawberry cultivars Albion, Seascape, and Tribute grown in a tunnel structure and in the field with no cover with different treatments of flower removal and polyethylene mulches.

Cultivar	Flower treatment	Soil mulch treatment	Cover treatment	Yield per linear foot row (lbs)
Albion	Early Flowering	Reflective mulch (1)	Outside	0.54
			Tunnel	1.14
		Reflective mulch over black plastic (2)	Outside	0.63
			Tunnel	1.29
	Late Flowering	Reflective mulch (3)	Outside	0.63
			Tunnel	1.10
		Reflective mulch over black plastic (4)	Outside	0.56
			Tunnel	1.08
Seascape	Early Flowering	Reflective mulch (1)	Outside	0.72
			Tunnel	1.21
		Reflective mulch over black plastic (2)	Outside	0.48
			Tunnel	1.41
	Late Flowering	Reflective mulch (3)	Outside	0.64
			Tunnel	1.19
		Reflective mulch over black plastic (4)	Outside	0.70
			Tunnel	1.00
Tribute	Early Flowering	Reflective mulch (1)	Outside	0.71
			Tunnel	1.19
		Reflective mulch over black plastic (2)	Outside	0.59
			Tunnel	0.94
	Late Flowering	Reflective mulch (3)	Outside	0.50
			Tunnel	0.89
		Reflective mulch over black plastic (4)	Outside	0.48
			Tunnel	1.05

Table 2. Plant biomass of day-neutral strawberry cultivars Albion, Seascape, and Tribute grown in a tunnel structure and in the field with no cover with different treatments of flower removal and polyethylene mulches.

Cultivar	Flower treatment	Soil mulch treatment	Cover treatment	Plant biomass (g)
Albion	Early Flowering	Reflective mulch (1)	Outside	3.7
			Tunnel	4.2
		Reflective mulch over black plastic (2)	Outside	3.8
			Tunnel	4.4
	Late Flowering	Reflective mulch (3)	Outside	3.8
			Tunnel	4.4
		Reflective mulch over black plastic (4)	Outside	3.8
			Tunnel	4.3
Seascape	Early Flowering	Reflective mulch (1)	Outside	3.8
			Tunnel	4.2
		Reflective mulch over black plastic (2)	Outside	4.1
			Tunnel	4.3
	Late Flowering	Reflective mulch (3)	Outside	3.8
			Tunnel	4.2
		Reflective mulch over black plastic (4)	Outside	3.9
			Tunnel	3.9
Tribute	Early Flowering	Reflective mulch (1)	Outside	3.7
			Tunnel	4.0
		Reflective mulch over black plastic (2)	Outside	4.0
			Tunnel	4.2
	Late Flowering	Reflective mulch (3)	Outside	4.1
			Tunnel	4.1
		Reflective mulch over black plastic (4)	Outside	4.1
			Tunnel	4.2

Table 3. Berry quality soluble solids concentration, initial pH, and percentage titratble acids on day-neutral strawberry cultivars Albion, Seascape, and Tribute grown in a tunnel structure and in the field with no cover with different treatments of flower removal and polyethylene mulches.

Cultivar	Soil mulch treatment	Cover treatment	Percentage SSC	Initial pH	Percentage titrable acid
Albion	Reflective mulch	Outside	11.4	3.51	11.0
		Tunnel	9.9	3.46	9.9
	Reflective mulch over black plastic	Outside	11.1	3.50	10.4
		Tunnel	9.6	3.46	10.0
Seascape	Reflective mulch	Outside	10.0	3.44	9.3
		Tunnel	9.3	3.42	9.5
	Reflective mulch over black plastic	Outside	10.0	3.44	9.5
		Tunnel	9.4	3.43	8.9
Tribute	Reflective mulch	Outside	10.7	3.33	13.7
		Tunnel	9.3	3.34	11.9
	Reflective mulch over black plastic	Outside	10.8	3.35	13.4
		Tunnel	9.8	3.33	13.1

Table 4. Berry quality percentage water lost after postharvest of one week and total percentage water mass of day-neutral strawberry cultivars Albion, Seascape, and Tribute grown in a tunnel structure and in the field with no cover with different treatments of flower removal and polyethylene mulches.

Cultivar	Soil mulch treatment	Cover treatment	Percentage water lost	Percentage total water
Albion	Reflective mulch	Outside	17.5	92.4
		Tunnel	15.8	94.4
	Reflective mulch over black plastic	Outside	18.2	92.7
		Tunnel	16.8	93.1
Seascape	Reflective mulch	Outside	21.7	94.2
		Tunnel	20.2	95.2
	Reflective mulch over black plastic	Outside	21.8	94.0
		Tunnel	21.6	95.6
Tribute	Reflective mulch	Outside	18.3	96.2
		Tunnel	16.4	96.0
	Reflective mulch over black plastic	Outside	18.1	96.3
		Tunnel	16.1	96.1

*Appendix 5 – **Preliminary** fact sheet of summarized findings. Final fact sheet will be available in January 2011.*

Increased production and marketability of specialty fruit crops grown in a tunnel structure

***Gail Nonnecke**, University Professor, ISU Department of Horticulture*
***Dennis Portz**, Agriculture Specialist, ISU Research Farms*

Introduction

Raspberries, blackberries, and strawberries are important high-value fruit crops for commercial growers in Iowa. Tunnel production of fruit crops in Iowa can extend and change the season of production and will result in high quality and profitable specialty fruit yields before a killing fall frost in Iowa.

High tunnels differ from conventional greenhouse production in that they generally have no permanent heat source (Lamont, 2009). However, high tunnels do have the potential to hasten the growing season and increase fruit quality (Demchak, 2009).

Figures 1 and 2. Raspberries produced in field plots (top) and raspberries grown in a tunnel (bottom) after the first frost in early October. Raspberries were still flowering and producing until the end of October in the tunnel structure while those in the field were dead.

Figure 3. Strawberry production on silver over white polyethylene mulch in a triple row.

Season extension from a high tunnel has the potential to supplement income to growers, hastening production by warming the soil in the spring and lengthening production in the fall by maintaining warm soil temperatures (Lamont, 2009). Management techniques used during production can increase berry quality and potentially postharvest berry quality (Prange and DeEll, 1997). Factors, such as soil temperature and moisture, play a major role in berry quality and are more manageable in a high tunnel structures compared to non-covered plants.

Research completed at ISU

Trials conducted near Lewis, Iowa showed 'Autumn Bliss' grown in a high tunnel hastened growth by approximately 40 days and showed higher yield compared to outdoor plantings (Domoto et al., 2008). An experiment near Ames, IA showed harvest of raspberries began in August and ended at frost in the outside plots, which was Oct. 10 while fruit continued to be harvested in the high tunnel until the end of October. Total yield was nearly twice as much and average berry size was greater when grown in a tunnel structure compared to field production with no cover.

Trials of day-neutral strawberry have produced similar results of total berry yield with nearly twice the yield when grown in a tunnel structure compared to field plots with no cover treatments.

Berry quality sugar content was 1 percent greater in strawberries from field plots with no cover than plots in tunnel structures, but water mass was also lower in field plots, which would make the sugar more concentrated. Water loss from respiration was lower after postharvest when berries were produced in a tunnel structure, which resulted in a longer shelf than those grown with no cover.

Weather conditions play a major role in production of fruit crops when comparing fruit from covered plots to plots without a tunnel structure. During rainy, windy, and cool temperature conditions fruit become unmarketable from field plots while fruits grown under the tunnel structure are still attractive and marketable.

Considerations before construction:

- Well drained soil
- Windbreaks
- Soil fertility and addition of organic matter
- Irrigation supply

Considerations when purchasing the tunnel:

- Crops to be grown (height / width)
- Equipment to be used in structure
- Labor for construction

Summary

Production of raspberries, blackberries, and day-neutral strawberries in tunnel structures increases off-season specialty fruit production in Iowa. Growing practices in tunnel structures increases production and produces a consistent, high-value, and marketable product that has high profit potential in Iowa's specialty crop market. Increased availability of specialty crops, such as raspberries, blackberries, and day-neutral strawberries in local markets will benefit consumers by providing healthy, locally grown options for consumption.

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Northeast Iowa – Specialty Crop Program

Quality Assurance Seal of Approval

Iowa State University Extension, Region 4

Specialty Crop Block Grant Program

Iowa Department of Agriculture and Land Stewardship

Final Report

November 30, 2010

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Project Title

Northeast Iowa – Specialty Crop Program for Quality Assurance Seal of Approval

Project Summary

The NIFF Coalition received a Specialty Crop Block grant of $15,000 from Iowa Department of Agriculture and Land Stewardship for specialty crop food safety education and marketing program.

The program region includes 6 counties: Howard, Winneshiek, Allamakee, Chickasaw, Fayette, and Clayton. The project is partnering with the Northeast Iowa Food and Farm Coalition (NIFF) to reach out to growers, and the Northeast Iowa Food & Fitness Initiative's Farm to School program.

The NIFF Coalition identified food safety as a barrier to some markets. Fruit and vegetable growers are facing pressure to comply with GAP, and wholesale buyers are increasingly requiring a third-party GAP certification. Although certification is technically still voluntary, nearly everyone in the produce industry agrees that mandatory certification is on the horizon for those who sell wholesale.

This current reality was evident in NE IA as some schools were concerned about safety of local food. Sodexo was named as the food service contractor at Luther College in June 2009 and required any farmers selling to them be third party audited.

Iowa State University Extension county staff led this project in partnership with the Leopold Center and area growers to research strategies for expanding markets for local specialty crops. The funds from this grant were used to research food safety certification programs, develop training and educational opportunities with experts in food safety, provide workbooks and manuals to growers, and to develop marketing materials to recognize farms using good agricultural practices (GAP).

Even though, GAP certification can be a large financial burden for small-scale farmers, the science and principles are sound and were the base for the educational component for the northeast Iowa program.

Because on-farm food safety certification is commanding national attention, we were able to capitalize on a USDA whole-farm pilot project and in the end, thirteen farms became USDA GAP certified.

Project Approach

Much of the first six months of the project were focused on in-depth research and inventory of the resources developed around GAP. The inventory included certification programs from other states, third party audit criteria (including USDA GAP), self-audit programs and growing standards for branded food groups. We had the fortunate opportunity to observe the farm certification process first-hand with GROWN Locally members as they prepared for an NSF Davis Fresh audit as required by Sodexo.

The grant committee created an intense and comprehensive training schedule for the summer to train fruit and vegetable producers in GAP. Shortly after, we learned of a Whole Farm GAP pilot program offered through the USDA.

The pilot program will help USDA establish baseline costs for training and certifying farmers according to the "one field - one farm - one audit" approach. The pilot project was launched as a result of a presentation by National Good Food Network Food Safety Coordinator Steve Warshawer. We learned of the project through communications with NGFN and Warshawer and volunteered to be a training

site. Ken Petersen, USDA GAP program Coordinator, announced that NE and SE Iowa would be the training locations for this pilot. The pilot training was offered as an additional component to the training schedule developed for this grant and did not replace any of the scheduled activities.

A complete list of training dates and activities held in NE Iowa is shown in Table 1. USDA Specialty Crop funds were only used for trainings for specialty crop growers. The attendees at all the trainings were either specialty crop growers or agency staff that are resources to those farmers. A brief description of each activity follows.

Educational Events

Producer meetings with Sodexo and Luther College. A series a meetings and negotiations took place with farmers and Sodexo and Luther College representatives to discuss the steps needed to continue to source local food to Luther College. In the past, Luther College purchased local food directly from farmers. Sodexo requires its vendors to have a third-party audit which is more comprehensive than GAP certification. ISU Extension and NIFF Coalition partners were allowed to participate and observe the entire process as the farmers worked to get their production and distribution facilities into compliance. Their experiences played a huge role in the development of the training program for this project.

Table 1. Number of people attending the NE Iowa Food Safety educational events.

Date	Event	No. of Producers
4/12/2010	Producer meeting with Sodexo	10
4/22/2010	Facilities Inspection	12
7/26/2010	Food Safety on the Farm	27
8/17/2010	USDA GAP pilot training	34
8/26/2010	A Food Safety Plan for You	21
9/5/2010	Field Trip to Harmony Valley Farm	17

Facilities Inspection with Dr. Sam Beattie. Dr. Beattie was the ISU Extension Food Safety Specialist and foremost expert in the state on food safety and facilities audits. Dr. Beattie visited two farms and performed a "mock audit" of their post-harvest handling facilities. He provided a written report on recommendations for the farms as they prepared for the third-party audit with NSF Davis Fresh.

Food Safety on the Farm. This six-hour course was taught by Dr. Cathy Strohbehn, ISU Extension Hotel, Restaurant, Institution Management and Dr. Margaret Smith, ISU Extension Value–Added Agriculture. Drs. Strohbehn and Smith have received funding from the Leopold Center to develop a food safety training program in the state. We were able to give them a trial run of their training program before they launch it statewide in 2011. The USDA Specialty Crop grant funded this training.

USDA GAP pilot training. This six-hour training was led by Elizabeth Bihn, GAPS Coordinator at Cornell University and Ken Peterson, Audit Programs Coordinator for USDA AMS Fruit and Vegetable Programs. The content was from the National GAPs program: www.gaps.cornell.edu. This program was a national pilot for a "whole-farm" USDA GAP audit program targeted toward smaller fruit and vegetable producers. The program was offered in two locations in Iowa. After participating in the training, farmers were eligible for a free GAP audit of their farm. The USDA Specialty Crop grant paid for lunch at this training.

FSP4U – A Food Safety Plan for You. This six-hour training was led by Michele Schermann, RN MS,

UMN Agricultural Health and Safety Research Fellow. Schermann developed the FSP4U template to provide common sense guidance for farmers to establish food safety plans. It is packed full of useful record keeping templates, and will help fruit and vegetable producers set up food safety systems to pass Good Agricultural Practice (GAP) audits. Schermann provided a hands-on workshop in a computer lab where farmers worked on their individual farm plans. The USDA Specialty Crop grant funded this training.

Field Trip to Harmony Valley Farm. To give farmers the opportunity to see a vegetable farm that has been third-party audited for several years, we planned a day trip to Harmony Valley Farm (HVF) near Viroqua, WI. Harmony Valley Farm is owned and operated by Richard de Wilde, who has been growing organic vegetables since 1973. Harmony Valley Farm's CSA supplies over 1500 families with certified organic seasonal produce from May through January. They have been third-party audited since 2007. The farmer participants were able to watch the washing and packing crews as they handled product after harvest. HVF staff were very accommodating and showed the documentation, cleaning procedures and employee policies they have in place. www.harmonyvalleyfarm.com. The USDA Specialty Crop grant funded this training.

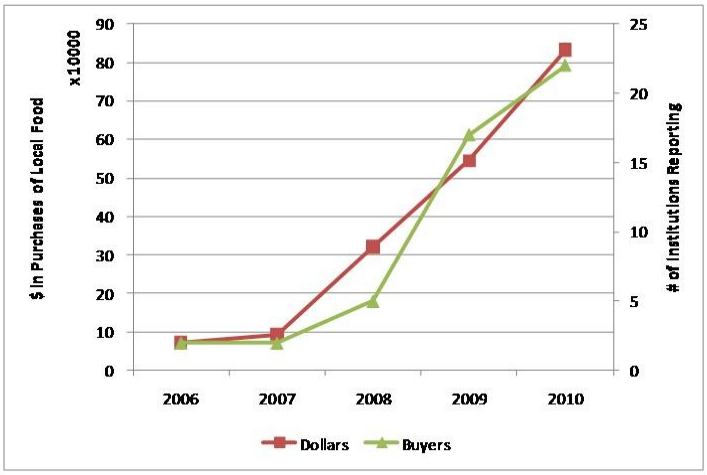
Goals and Outcomes Achieved

The NIFF Coalition identified two goals and measurable outcomes for this project. Both goals were reached.

1. 10% increase in purchases of local foods from schools and institutional buyers by the end of the first year of implementation.
2. NIFF will provide training to over 30 growers and provide connections to a minimum of 8 institutional buyers including school districts.

10% increase in purchases of local foods from schools and institutional buyers .

Each year, the NIFF Coalition collects data on the amount of locally grown food purchased by institutions, including schools. For the period August 2009-10, 22 institutions reported $832,227 in purchases (see right). In the previous year, 17 institutions reported purchases of $544,660. The local food grocery store alone reported a 22% increase in purchases for their retail and deli departments.



Eleven schools reported local food purchases in the 2009-10 school year. Six of these schools were Farm to School pilot projects in the 2009-2010 school year (F2S). The previous year, nine schools reported $16,766 in purchases—an increase of over 40%.

Training to over 30 growers and provide connections to a minimum of 8 institutional buyers including school districts. As mentioned previously, people from over 35 farms participated in training. Twenty-two institutions report purchasing local food, including 11 schools.

Seal of Approval

The final component of this project was to design a seal of approval and a branding campaign to help

farmers market their food safety status. A local marketing consultant designed a logo and marketing materials for the I KNOW campaign. The materials read, "Farmers who participate in the I KNOW project have implemented Good Agricultural Practices on their farms. These farmers know that proper handling on the farm is essential to food safety." Posters, stickers, pricecards, banners and magnets were produced. See samples of the materials at the end of this report. At this time, farms who are USDA GAP certified are able to use the materials.

Unexpected Outcomes

One of the driving forces of this project was to find a way to help farmers implement GAP on their farms using a whole-farm approach. Because of the USDA whole-farm pilot program, we were able to train and assist farmers in preparation of a USDA audit, but did not need to focus on administering the audit ourselves. As a result twelve farms in northeast Iowa are USDA GAP certified along with one farm in central Iowa.

Beneficiaries

- There are now thirteen more USDA GAP certified farms in Iowa. Previously, there was three.
- Schools and institutions are more confident working with local farmers knowing that the USDA has confirmed their production and handling practices.
- Producers have reported increased sales volume and new accounts. They also report that mentioning "GAP certification" puts new buyers at ease and moves the discussions forward quickly. Producers also report contacts from distribution companies interested in carrying more local product.
- State partners and organizations have benefited from this experience and are taking steps to provide support for on-farm food safety certification.

Lessons Learned

Statewide need. NE Iowa partners quickly realized that this problem was bigger than their corner of the state. As food safety and certification barriers emerged for farmers across the state, a group of state partners started meeting to discuss on-farm food safety issues and next steps. This "On-Farm Food Safety Taskforce" has met two times in person and communicates regularly by email.

Ongoing training needed. Continued education is needed for new farmers interested in USDA GAP certification. Farmers also indicate that employee training will be needed. The state taskforce will play in important role in meeting this need.

More technical assistance needed. At one meeting, the taskforce heard about how the State of Georgia has a staff person dedicated to helping farmers prepare for their third-party audits – a mentor or coach. The Iowa group felt this was a valuable and essential service to offer. Coaches would be available (for a fee) to assist farmers with "mock audits." We believe that the combined education and coaching activities will result in a farm being adequately prepared for a third party audit.

Statewide Certification Needed. There are currently no USDA auditors housed in Iowa. Farms wishing to become USDA GAP certified must pay additional travel costs to bring in an auditor from out-of-state. The taskforce has been talking to USDA, IDALS and Iowa Crop Improvement Association about training Iowa auditors.

Contact Person

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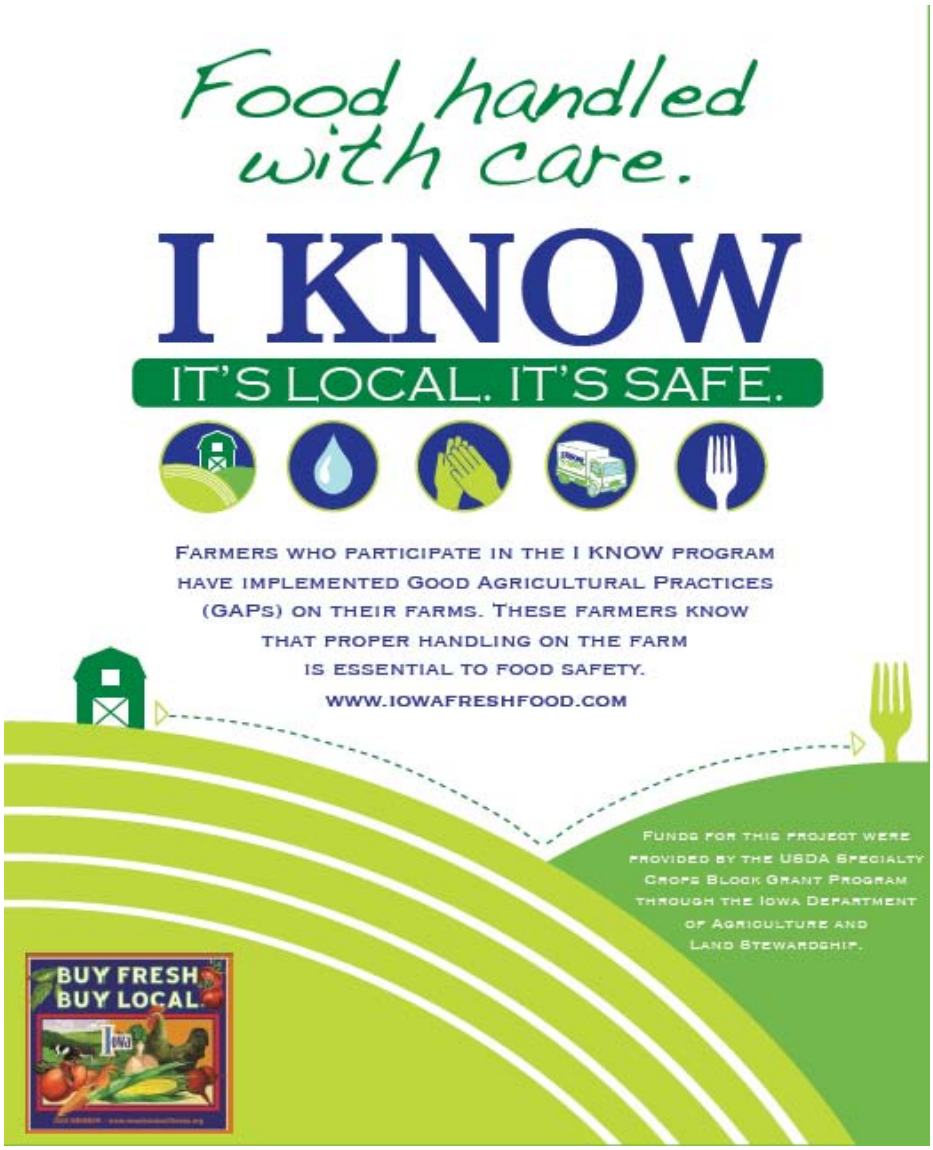
Additional Information: Here are samples of the marketing materials created for this project.



I KNOW Poster

I KNOW price cards and signs

I KNOW banner, cards and magnets

Detailed Financial Report

BUDGET SUMMARY

Grant Line	Proposed	Actual	Difference
Personnel	$ 3,500.00	$ (4,530.77)	$ (1,030.77)
Travel	$ 1,000.00	$ (2,371.26)	$ (1,371.26)
Supplies	$ 500.00	$ (690.00)	$ (190.00)
Contractual	$ 10,000.00	$ (7,407.97)	$ 2,592.03
Total	$ 15,000.00	$ (15,000.00)	$ -
20% can be shifted to other lines	$ 3,000.00		$ 2,592.03

REIMBURSEMENT REQUESTS					
	6/27/2010	IDALS reimbursment	1		$ 1,575.00
	9/22/2010	IDALS reimbursment	2		$ 4,367.56
	11/29/2010	IDALS reimbursment	3		$ 9,057.44
TRANSACTION DETAIL					
Grant Line	Date	Pay to:	Reimb #	Description	Expense
Personnel	8/16/2010	Allamakee County Extension	1	Coordinator wages -- Wiemerslage	$ (1,575.00)
Personnel	9/1/2010	Allamakee County Extension	2	Coordinator wages -- Wiemerslage	$ (1,470.00)
Personnel	10/28/2010	Allamakee County Extension	3	Coordinator wages -- Wiemerslage	$ (1,485.77)
Travel	7/26/2010	Oneota Coop	2	Farm Safety Training meal	$ (200.00)
Travel	7/26/2010	Teresa Wiemerslage	2	Farm Safety Training drinks (Quillins)	$ (11.36)
Travel	7/26/2010	Country Inn & Suites	2	Farm Safety breakfast (22 x 3.50)	$ (77.00)
Travel	8/17/2010	Boikes' Trailside Inn	2	Training lunch for 34 people	$ (220.66)
Travel	7/26/2010	GB Enterprises	2	Farmer Travel (162 mi x $0.39)	$ (63.18)
Travel	7/26/2010	Edmund Koehn	2	Farmer Travel (120 mi x $0.39)	$ (46.80)
Travel	7/26/2010	Bob Raymond	2	Farmer Travel (109 mi x $0.39)	$ (42.51)
Travel	7/26/2010	Elizabeth Bohr	2	Farmer Travel (24 mi x $0.39)	$ (9.36)
Travel	7/26/2010	Glen Elsbernd	2	Farmer Travel (100 mi x $0.39)	$ (39.00)
Travel	7/26/2010	Kayla Willis	2	Farmer Travel (40 mi x $0.39)	$ (15.60)
Travel	7/26/2010	Sue Gavle	2	Farmer Travel (80 mi x $0.39)	$ (31.20)
Travel	7/26/2010	Janet Halvorson	2	Farmer Travel (212 mi x $0.39)	$ (82.68)
Travel	7/26/2010	Josh Hennessee	2	Farmer Travel (128 mi x $0.39)	$ (49.92)
Travel	7/26/2010	Katie Prochaska	2	Farmer Travel (40 mi x $0.39)	$ (15.60)
Travel	7/26/2010	Terisa Steiber	2	Farmer Travel (150 mi x $0.39)	$ (58.50)
Travel	7/26/2010	Rock Spring Farm	2	Farmer Travel (76mi x $0.39)	$ (29.64)
Travel	7/26/2010	Larry Reiling	2	Farmer Travel (172 mi x $0.39)	$ (67.08)
Travel	7/26/2010	Klauke Family Farm	2	Farmer Travel (78 mi x $0.39)	$ (30.42)
Travel	7/26/2010	Paul Young	2	Farmer Travel (156 mi x $0.39)	$ (60.84)
Travel	7/26/2010	Gordon Murray John	2	Farmer Travel (106 mi x $0.39)	$ (41.34)
Travel	7/26/2010	Ann Bushman	2	Farmer Travel (80 mi x $0.39)	$ (31.20)
Travel	7/26/2010	Kelly Nordschow	2	Farmer Travel (52 mi x $0.39)	$ (20.28)
Travel	8/26/2010	Allamakee Co Extension	2	Lunch for workshop	$ (136.09)
Travel	10/28/2010	Allamakee County Extension	2	Coordinator travel--Wiemerslage	$ (67.08)
Travel	8/26/2010	NICC Waukon Center	3	Computer Lab	$ (200.00)
Travel	10/5/2010	Hawkeye Stages	3	Bus for field trip	$ (560.00)
Travel	10/5/2010	Oneota Coop	3	Refreshments for field trip	$ (26.25)
Travel	10/28/2010	Allamakee County Extension	3	Coordinator travel--Wiemerslage	$ (137.67)
Supplies	10/4/2010	Family Farmed	3	Post Harvest Handling Books	$ (690.00)
Contractual	7/26/2010	HRIM Extension	2	Teaching-- Cathy Strohbehn	$ (1,085.98)
Contractual	7/26/2010	VAA Extension Program	2	Teaching--Margaret Smith	$ (364.24)
Contractual	8/26/2010	Michelle Schermann	3	Teaching -- Michele Schermann	$ (1,238.00)
Contractual	10/5/2010	Harmony Valley Farm	3	Teaching--Harmony Valley Farm	$ (400.00)
Contractual	10/28/2010	Aryn Henning Nichols	3	Marketing Materials	$ (1,819.75)
Contractual	10/28/2010	Aryn Henning Nichols	3	Marketing Consultant	$ (2,500.00)

Growing Opportunities for Specialty Crop Producers through the Farm to School Program - Final Performance Report

Project Summary

Specialty crop growers are faced with many challenges in a four-season state. Current public opinion recognizes the importance of increased fruit and vegetable consumption. While the demand for locally grown produce is peaking, producers are often times left with a void in marketing these products to the general public. How do you reach potential consumers that do not seek you? Simultaneously, how do consumers know where to purchase these products when farmers markets are not available? These issues coupled with the lack of infrastructure and distribution outlets to fully capitalize on the fresh fruits and vegetables grown in our state provides a real trial.

Our goal is two-fold, help growers diversify their marketing opportunities with consistent markets while providing consumers the ability to easily find the locally grown fruits and vegetables they seek.

The answer we sought was in the form of a state wide directory created with tools to market to schools and a current and convenient marketplace for growers. SCBG funding was requested to address these needs through creating directories and a variety of farm to school initiatives to showcase Iowa's producers and their products and connect them with potential buyers across the state.

Project Approach

Addressing the need for knowledge was a critical first step. We cannot attempt to meet the needs of specialty crop producers without having a clear understanding and inventory of their needs. Surveys were created and sent to fruit and vegetable growers to measure their interest and ability to sell to schools as well as other wholesale and retail outlets. The survey was sent to growers previously listed in an Iowa directory; members of the Iowa Fruit and Vegetable Growers Association; individuals listed on the IDALS' Sensitive Crop Registry and was also made available on the IDALS website. IDALS also collaborated with other organizations such as RC&Ds and Practical Farmers of Iowa to obtain the most comprehensive list of producers available. In addition, the directory was promoted at conferences and meetings where growers are the focus such as the Annual Iowa Organic Conference and the Annual Iowa Fruit and Vegetable Conference.

The Farm to School Program also faces a myriad of challenges. Several of these obstacles identified are distribution of locally grown products and identifying these crops as such. Hope came in the form of a small branch of a foodservice distributor serving much of the Midwest region. This new division of local food distribution called Local Harvest Supply was emerging offering Iowa-grown products. Unfortunately this company dissolved with the retirement of the coordinator.

Without the convenience of a distribution service, increased importance was placed on sourcing these products closer to home. IDALS worked with the Iowa Department of Education to provide a tool for school food service to obtain the necessary bids required in the informal bid process through the newly-created Fruit and Vegetable Directory. This "bid sheet tool" allows food service employees to seek by county or city the desired produce and

then sends an embedded email to selected growers with the product and delivery specifications they are seeking. This eliminates the need for the "Choose Iowa" labeling and quickly and easily identities growers that are interested in working with schools.

With the establishment of fruit and vegetable directories and the increased demand for local foods in our schools, providing schools the funding and opportunity to connect with these growers was the next logical steps. We offered a variety of farm to school initiatives to give schools the funding and opportunity to connect with these growers. These initiatives included supporting additional Farm to School Chapters, "A is for Apple", "Wrap your own—Iowa Grown."

School gardens offer an immense hands-on learning activity for students of all ages. In addition to the educational opportunities gardening offers, the sense of accomplishment students feel after contributing to their own health and nutrition is immense. Offering a farm to school entitled "A Garden is the way to Grow" we provided opportunities for 20 schools to receive supplies such as fruit and vegetable seeds, garden curriculum, worms and composting bins and funds to construct gardens schools.

Goals and Outcomes Achieved

- Four chapters were established with the Iowa Farm to School Program. The impact of this includes:
    - The purchase of apples, butternut squash, carrots, sweet potatoes & harkurei turnips from local growers
    - School wide planting day
    - Establishment of Garden club for students
    - 5 local growers attended a farmer fair "An In-school Field Trip." They led lessons and activities including: How Popcorn Grows, Building a Composting System Food Miles and Food Growing Seasons and Fruit & Vegetable Sampling
    - Locally grown fruits and vegetables served to 355 students 5-8 times
    - Educational activities
    - Student involvement in greenhouse production and composting
    - Farmers market for students featuring local farmers

    In addition to teaching kids about the value of their food and where it comes from, the press received from these events will undoubtedly have a lasting impact in the communities. Local growers were promoted each time their product was served hence providing free advertisement and an enriched customer base.

- A total of fifty-eight schools participated in the "A is for Apple" program. This initiative included funds for classrooms to procure locally grown apples, apple cookbook, and other apple-related books for the classroom. As a result of this initiative, 4000 students were served locally grown apples on one or more occasions; benefitting 17 orchards with $2190 within the state and countless future opportunities through teachers, parents and the next generation of consumers.

- Five schools participated in the "Wrap Your Own-Iowa Grown" initiative. This initiative offered schools money to procure locally grown fruits or vegetables to be used in a

wrap. The schools also received recipes, educational brochures and wrap papers. As a result of this initiative, $1000 was spent on fruits and vegetables impacting eight growers.

- We had a goal of identifying 150 growers interested in selling to schools to schools. While we have fallen short of that number, we have received interest from 85 growers that have sold to schools or are interested in selling to schools. This will be an ongoing endeavor as we continue to promote the program and get the message out. Promotion of the directory continues with meetings with school officials, growers and individuals associated with local food movement groups across the state. Press releases and hosting breakout sessions at grower conferences continue to promote this opportunity.

- Viable working relationships were established between approximately 45 additional schools and growers through the four farm to school initiatives (A is for Apple, Wrap your own-Iowa Grown, A Garden is the way to Grow and National Farm to School Month). The feedback on the performance report shows that 100% of the schools that participated in one of these initiatives have a desire to purchase additional locally grown specialty crops.

- Results from the performance reports submitted from the "A Garden is the way to Grow" initiative show the following:
    - 900 students were reported to have actually had a role in the planting or caring for the garden
    - Garden curriculum benefitted 6994 elementary students
    - 700 students tried a fruit or vegetable for the first time.
    - 27 different specialty crops were grown in school gardens
    - 100% of the respondents said they would like to continue the garden
        - Results from just one school indicated that of the participating students
            - 72% enjoyed, 80% tried new things, 62% worked w/family, 100% liked better than canned, 100% would do again
    - Post-assessment surveys of children involved in the garden project showed predictable growth in areas such as "What did you learn from studying/working with gardens? Comments such as: a garden is hard work and the food tastes better were resonated throughout. Questions regarding what is found in soil, the function and importance of earthworms and general knowledge of the "food chain" increased 100%. Pre-assessment answers to questions such as why is important to eat fruits and vegetables were typically to stay strong or to stay skinny. The general fact that fruits and vegetables help you stay healthy was not a new notion to many. The growth tends to be in the fact that it isn't as hard or challenging to eat healthy foods as they had perceived. Students also learned that gardening has few restrictions and can be done in limited spaces such as raised beds or pots. Giving students the opportunity to raise these "healthy" foods and then taste them allows them to consider healthier eating choices when given the option.

Beneficiaries

The beneficiaries of these projects are numerous; much of the impact will be felt for years to come. Educating students about making healthy nutritional choices and providing them the resources to make these decisions is a life lesson. Giving the students the opportunity to try different fruits and vegetables and allowing them to taste the difference in fresh produce will go a long way in helping them to form future purchasing habits.

Excitement and enthusiasm generated from the school gardens has been overwhelming. School gardens have impacted not only students and teachers but entire communities. In visible locations, people have enjoyed watching these gardens grow. The schools approved for the A Garden is the Way to Grow initiative house 8,839 students. Garden benefits were reaped by not only those students with their hands in the soil, but numerous other students who had the opportunity to taste the gardens bounty through taste tests or part of special classroom meals.

These projects created a win-win. By creating a market for one sector (growers), you create access for another (school food authority (sfa), students, teachers). Producers throughout the state received an opportunity to work with and in local schools. As an example of some of these activities, forty two producers provided apples to schools. Fifty eight producers signed up to be included in the directory (due to re-enrollment this number will increase all year.) The directory will offer an ongoing opportunity to growers as it will be used and promoted for many years to come. Still other growers provided farm tours and spoke to classrooms. Farm to school not only provides an additional market for growers but it helps create demand by raising awareness of the growers within our communities. Expansive use of high tunnels provides a longer season when many farmers markets are no longer open for business and schools are. Nearly all of the participating schools indicated they were not only interested in purchasing from the grower again but that they would like to purchase additional items from said grower.

In addition to the obvious beneficiaries, partnerships were formed among state agencies, non-profit groups and communities in general. These opportunities open the door to community building and future growth and outreach.

Lessoned Learned

Providing growers with self-enrolled directories that are updated to provide current information each year has drawbacks. Each January the specialty crop producers receive an email to update their information. Until this information is updated they do not appear in the current directory, creating a perception of a lack of participation.

Encouraging both producers and schools to get involved with Farm to School is an ongoing effort that requires diligence and determination.

Transporting red wiggler worms across the state is a real challenge!

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