

# Rhode Island DEM/Division of Agriculture

## Specialty Crop Block Grant Program – Farm Bill

Agreement Number: 12-25-B-1252

Final Performance Report

Submitted: May 20, 2014

**Contact:** Peter Susi  
Deputy Chief RI/DEM Division of Agriculture  
235 Promenade Street  
Providence, RI 02908

### **TABLE OF CONTENTS** -----1

---

Rhode Island Grown Garlic, Leek, and Onion: High Value Options for Winter Market----	2
Technical Assistance to Implement Organic Techniques on Specialty Crop Farms-----	6
Using Social Media to Promote Rhode Island Specialty Crop Farms -----	17
Genesis Center Community Garden Expansion to Increase Education and Access-----	21
Rhode Island Good Agricultural Practices (RIGAP): Expanding Updating, and Promoting-28	
Enhancing the Online RI Farm Database-----	33
Transitioning, Improving, and Enhancing the Rhode Island Farm to School Project-----	36
RI Division of Agriculture “Get Fresh Buy Local” Marketing Improvement Program-----	44

# FINAL REPORT

## PROJECT TITLE

Rhode Island Grown Garlic, Leek, and Onion: High Value Options for Winter Market

## PROJECT SUMMARY

The objective of this project was to conduct a two-year trial of varieties and production methods and to develop recommendations for best practices for alliums in Rhode Island. This project was motivated by the increase in winter farmers' markets in Rhode Island, which creates a demand for locally grown produce that can be stored for sale in the winter and early spring. Onions, garlic, and leeks are allium vegetables which store well, are used in many culinary traditions, and are popular with health-conscious consumers. However, they are not a traditional vegetable crop in Rhode Island, and little information was available on the best production methods and varieties for this region. This project was developed to evaluate the performance of the many new onion, leek, and garlic varieties available to growers, and to test some ideas for improving production. While this is the first project to deal specifically with the allium vegetables, it builds on previous SCBGP projects where we tested varieties of tomatoes and lettuce for RI market growers.

## PROJECT APPROACH

This project used two years of field trials to test allium varieties and production methods. We tested a total of 32 onion varieties for yield, thrips tolerance, suitability to growth in plastic mulch, and suitability for storage. 'Candy' was the best sweet onion, 'Bridger', 'Prince', 'Copra', 'Calibra', and 'Cortland' were the best yellow storage onions, and 'Red Bull' and 'Red Wing' were the best red onions. We also tested 29 varieties of leeks for establishment, yield, uniformity, and ability to over-winter in the field. 'Megaton', 'Tadorna', and 'Rally' were top varieties for fall harvest, while 'Tadorna' and 'Autumn Giant' were best for over-wintering in the field. Twenty-four garlic varieties were tested in a trial established in November 2012 and harvested in July 2013. 'Chesnock Red' had the best yield of the hard neck garlic varieties, and 'Oregon Blue' had the best yield of the soft neck garlic varieties. Bulb size averaged 25 grams for 'Chesnock Red' and 52 grams for 'Oregon Blue'. Other varieties of each type had larger bulbs, but fewer of the planted cloves produced marketable bulbs. All of the soft neck garlic varieties survived the winter without trouble in both 2012-13 and 2013-14, suggesting that soft neck garlic is a viable crop for Rhode Island. A second year of garlic variety trials is in progress and will be harvested in July 2014.

Alliums are long-season crops, in the field for as much as 9 months, and they have sparse canopies that do not effectively shade out weeds. Thus weed control is a significant issue, particularly for market growers who often do not use herbicides. We tested three methods of weed control in this study: biodegradable plastic mulch for onions, stale seedbed for leeks, and a killed cover crop of oats for garlic. The

biodegradable plastic mulch worked well for yellow storage onions, but not for sweet yellow onions or red onions. The primary problem was increased bulb rot when the bulbs formed under the mulch; mulch may also have slowed the maturity of the sweet onion and red onion varieties leading to increased rot. The stale seedbed was not effective for the leeks, but when the leeks were planted in rows 30 inches apart regular hilling with a wheel hoe effectively controlled the weeds with a minimum of labor. The killed cover crop of oats was a complete failure in the garlic as the oats did not winter kill, and did not prevent the growth of chickweed over the winter. In the spring many hours of hand weeding were required to remove the oats and chickweed from the garlic field. The 2013-14 trial was mulched with straw after planting, which proved quite effective at preventing weeds over the winter.

Rhode Island soils tend to be deficient in potassium and sulfur, both of which have been shown to be important for yield and disease prevention in alliums. We tested the hypothesis that fertilization with these nutrients would improve marketable yields and decrease losses during curing and storage. The hypothesis was tested over two years in leeks and onions, and for one season in garlic. Sulfur fertilization levels ranged from 0 to 625 lbs/acre, but no significant effect was found. Application of potassium at rates above those indicated by the soil test also had no effect. There were significant differences between varieties for all three vegetables, suggesting that use of well-adapted varieties is more effective than fertilization as a method of increasing marketable yields.

This project was a collaboration between the University of Rhode Island Department of Plant Sciences and Entomology (PSE), the Rhode Island Agricultural Experiment Station (RIAES), and the University of Rhode Island Cooperative Extension (RICE). PSE paid for Rebecca Brown's time, and provided training and oversight for Noah LeClaire-Conway, who is a graduate student in the department. In addition labor for planting and harvest was provided by URI undergraduate students in the vegetable crops production classes. RIAES provided the land and equipment for the trials, and research farm staff assisted with trial maintenance. The trials were featured in the vegetable crops twilight meetings hosted by RICE, and the publications resulting from the project are available through the RIAES Bulletin, which is a web publication jointly maintained by RICE and the URI Library.

#### GOALS AND OUTCOMES ACHIEVED

**Goal: Conduct variety trials for garlic (20-25 varieties) and leek (15-20 varieties), with trials repeated over two years.**

Outcome: We conducted variety trials for onion in addition to garlic and leek. The onion and leek trials are complete; the second year of the garlic trial is in progress. A total of 32 onion varieties, 29 leek varieties, and 26 garlic varieties have been tested. Results were shared at twilight meetings in 2012 and 2013, and have been posted on the web at [http://digitalcommons.uri.edu/riaes\\_bulletin/](http://digitalcommons.uri.edu/riaes_bulletin/). The 2012 onion report had been downloaded 358 times as of May 9, 2014 and the 2012 leek report had been downloaded 127 times.

**Goal: Evaluate non-chemical weed control strategies for garlic, leek, and onion.**

Outcome: We evaluated standard and biodegradable plastic mulches for weed control in onions, allelopathic cover crops and stale seedbed for weed control in leeks, and a winter-killed oat mulch for weed control in garlic. These weed control strategies were evaluated as part of the variety trials. Plastic mulches worked on yellow storage onions, but not on red onions or yellow sweet onions. The biodegradable mulch caused less bulb damage, perhaps because it stretches more easily. Both mulches controlled weeds, and were compatible with overhead irrigation. Allelopathic cover crops were not useful for controlling weeds in the leeks. However, when leeks were grown from transplants and planted with 30 inches between rows we were able to effectively combine weed control and hilling for blanched stem production using a Glaser wheel hoe with a hiller-furrower attachment. The winter-hilled oat mulch was not effective in the garlic as it did not winter kill, and did not control chickweed.

**Goal: Evaluate fertilization with sulfur and potassium as methods to increase marketable yields and storage life in onion, garlic, and leek.**

We tested the effects of sulfur fertilization on yellow storage onions, leeks, and garlic. The cultivars 'Infinity' and 'Copra' were used for the onion study. 'Copra' is known to be an excellent storage onions, while 'Infinity' had a high level of bulb rot in our 2011 variety trials. The varieties 'Pandora', 'Tadorna', and 'Bandit' were used for the leek trial. For the garlic trial we used the softneck cultivar 'S&H Silverwhite' and the hardneck cultivars 'Belarus', 'Music', and 'Polish Hardneck'. Control treatments for all trials followed the recommendations in the New England Vegetable Management Guide. Experimental treatments followed recommendations for all nutrients except sulfur and potassium. For the 2012 onion and leek trials experimental treatments were sulfur at 43 or 86 kg/ha, or a combination of 43 kg sulfur and 52 kg potassium per hectare. Sulfur was supplied as granulated sulfur; potassium was supplied as potash. For the garlic trial treatments were 140, 280, or 560 kg sulfur per hectare. In 2013 the onion and leek trials included sulfur rates of 43, 86, 172, 344, and 688 kg sulfur per hectare. Potassium fertilization was uniform across all treatments in 2013. There were significant differences between varieties for marketable yield and storage life, but no significant effects of sulfur or potassium.

## BENEFICIARIES

The primary beneficiaries of this project are vegetable producers growing allium crops for sale during the fall and winter. Secondary beneficiaries are undergraduate and graduate students at URI who used the project as a hands-on learning opportunity. There has been significant interest in the reports from the 2012 onion and leek trials, as signified by the number of downloads. The 2012 onion report had been downloaded 358 times as of May 9, 2014 and the 2012 leek report had been downloaded 127 times. We anticipate similar levels of interest in the final reports from this project, once they are published. In particular we have shown that soft

neck garlic can be productive in Rhode Island; this is significant because soft neck garlic has greater potential for storage and value-added sales than the hard neck varieties traditionally grown in New England.

#### LESSONS LEARNED

In doing this study we learned that problems with bulb rot in onion and garlic cannot be resolved by fertilization with granular sulfur. It is possible that sulfate fertilizer or foliar sulfur sprays would be more effective, and these should be explored further. Rot is particularly problematic in sweet yellow and red onions, which have higher moisture and sugar levels and lower levels of alliin than yellow storage onions. Successful production of these onion types in our climate may require that growers use cultural methods such as undercutting to induce dry-down once the bulbs have reached mature size, as the natural senescence process is very slow and facilitates fungal infection.

We have excellent experimental data, but very little data on the actual impacts on beneficiaries. Measuring impacts is a chronic challenge. Our publication distribution systems are not designed to collect contact data for follow-up. We do collect contact information from attendees at twilight meetings, but growers often do not remember which meetings they attended, and dislike taking time to complete surveys on implementation of information from the meetings. This is a challenge that needs to be addressed by URI Cooperative Extension, rather than by individual projects.

#### CONTACT PERSON

Dr. Rebecca Brown, Department of Plant Science and Entomology, University of Rhode Island. 401-874-2755 brownreb@uri.edu

#### ADDITIONAL INFORMATION

The following final reports and extension materials are available at [http://digitalcommons.uri.edu/riaes\\_bulletin/](http://digitalcommons.uri.edu/riaes_bulletin/):

- URI Garlic Variety Trial
- URI Leek Variety Trial Report
- URI Onion Variety Trial Report
- Do Sulfur Amendments Improve Yield and Quality in Alliums?

# FINAL REPORT

**Northeast Organic Farming Association of Rhode Island  
247 Evans Road  
Chepachet RI 02814**

**For the Period of:**

**April 1, 2012 – March 31<sup>st</sup> 2014**

**For the Purpose of**

*To Provide Training in the use of organic production techniques to farmers in Rhode Island*

## PROJECT SUMMARY

The purpose of this project was to provide training in the use of organic production techniques to farmers in Rhode Island. Because organic farming is a developing technology, farmers need introductory and advanced training to establish and maintain competitiveness in the marketplace. The RIDEM Division of Agriculture receives new applications for organic certification every year, but some applicants do not get certified due to lack of knowledge about how to farm organically and navigate the certification process. The Division of Agriculture is not allowed to advise applicants how to produce organic crops. Specialty crops that are certified organic or grown with methods that imply sustainability are more desirable in the marketplace, resulting in increased sales for the farms providing them.

At the time the grant was awarded, Rhode Island was, and still is, experiencing a resurgence in interest in local food. Many new farms and farmer's markets are emerging. Some of these new farmers are interested in producing crops that would cater to the population that seeks food grown with organic methods. Established organic farmers are looking to improve their skills to maintain their place in an increasingly competitive market.

## PROJECT APPROACH

The project addressed the need for training in the use of organic production techniques by presenting four advanced grower's seminars, continuing an organic farm advisor program, and a series of on-farm workshops. The advanced grower's seminars featured regional experts in specialized areas of organic production. The organic farm advisor program matched experienced Rhode Island farmers with

beginning farmers who desired to learn how to use organic techniques and apply for organic certification. The on-farm workshops were tours of local farms using organic methods, either a general farm tour or with a focus on a specific skill.

The following activities were performed:

Advanced Grower Seminars:

Organic Greenhouse Tomato Growing Seminar 11/18/2012

Presenter: Skip Paul, Wishing Stone Farm, Little Compton, RI

Summary: Demonstrated long-term greenhouse maintenance, care, fertility management, and basics of tomato grafting.

Fertility Management in the Bio-Extensive Market Garden Seminar 2/1/2013

Presenter: David Fisher, Natural Roots Farm, Conway, MA

Summary: David Fisher discussed soil building and cropping cycles over a two-year period. He uses a five-part fertility program, which includes extensive cover cropping, compost application, soil testing and a customized mineral-based fertilizer blend, pre-plant fertilization and foliar crop feeding. David also discussed seed inoculants, side-dressing and drenches for transplanting. Participants learned about weed management techniques and using draft horses for fieldwork.

Soil Fertility in Focus and A Late Season Field Walk 10/20/2013 and 11/10/2013

Presenter: Derek Christianson, Brix Bounty Farm, Dartmouth, MA

Summary: In this two-part seminar, Derek discussed and demonstrated the production of nutrient dense foods using sustainable growing methods which focus on improving soil health for long-term agricultural viability. We'll examine five crops in depth, covering the key minerals needed to support healthy growth, cost and expense considerations, and essential management during their growing seasons.

The Past, Present, and Future of Organics Organic Farming Conference.

Presenters: Michael Veracka, Landscape Architect and former farmer; Michael Merner, commercial organic composter and farmer; and John O'Malley, Agricultural teacher and former farmer.

The three NOFA/RI founders and early members described their reasons for starting this NOFA chapter back in 1990 and the continued relevance of organic farming today. We heard about edible landscaping from Michael Veracka, producing and using compost from Mike Merner, owner of Earth Care Farm, and educating our next generation of farmers from John O'Malley.

**Please discuss how the presentation "The Past, Present, and Future of Organics Organic Farming Conference," solely enhance the competitiveness of specialty crops.**

**Michael Veracka: Demonstrated and discussed the use of edible plants (e.g. fruit and nut trees) in landscaping projects; wide adoption of this practice would keep nursery producers relevant in the current market.**

**Mike Merner: Discussed sourcing compost inputs, making compost, and using live plants to determine whether finished compost was suitable for growing crops.**

**John O'Malley: Discussed the importance of increasing the number of school garden programs as an effective way to promote consumption of fresh vegetables among students.**

Farm Advisor Program:

Six experienced farmers were selected to be organic farm advisors: Steve Ramos, Diana Kushner, John Kenney, Derek Christianson, Michael Loeffler, and Christina Dedora. Applications completed by the advisors required them to specify areas of expertise in which they are qualified to teach beginning farmers. Assistance was provided to Roots Farm for soil fertility, Barden Family Orchard for organic certification, Southside Community Land Trust City Farm for soil fertility, Sidewalk Ends Farm for cut flower production, and Hendall Loeffner for vegetable and herb production. Also, Blue Skys Flower Farm received assistance from two separate advisors for tractor use and marketing medicinal herbs. A total of 41.5 hours of advising occurred, with an average of 5.9 hours per farm advised.

On-Farm Workshops:

18 On-Farm Workshops were presented on farms in RI that use organic methods:

2012

Scratch Farm, Cranston, -Seed Saving  
Southside Comm. Land Trust, Providence-Urban Farming  
Roots Farm, Tiverton, Moveable Greenhouses  
Arcadian Fields, Hopkinton, Farm Tour  
Freedom Farm, Johnston, Succession Planting

2013

Southside Comm. Land Trust, Providence-Seed Starting  
Hillandale Farm, Westerly-Bed Preparation  
New Urban Farmers, Pawtucket-Aquaponic Greens & Mushrooms  
Sidewalk Ends, Providence-Greens Prod. & Urban Composting  
Farming Turtles, Exeter -Microgreens  
Blue Skys Farm, Cranston-Tomato Variety Tasting  
Scratch Farm, Cranston-Seed Saving  
Island Community Farm, Middletown-Low Tunnels  
Freedom Food Farm, Johnston-Season Extension  
Roots Farm, Tiverton-Moveable Greenhouses  
Farmacy Herbs, Providence-Growing, Harvesting, and Making Herbal Medicines  
Robin Hollow Farm, N. Kingstown-Organic Cut Flowers

2014

Island Community Farm, Middletown-Soil Block Making

The project partnered with the University of Rhode Island Cooperative Extension for publicity and meeting space, Farm Fresh RI for publicity and data collection, and the Southside Community Land Trust for publicity and planning the advanced grower's seminars.

## GOALS AND OUTCOMES ACHIEVED

Advanced Grower Seminars were attended by specialty crop farmers as follows:

Organic Greenhouse Tomato Growing Seminar: 8 farmers.

Organic Fertility Management in the Bio-Extensive Market Garden Seminar: 15 farmers and 1 farm service providers.

Soil Fertility in Focus (part 1) and a Late Season Field Walk (part 2) Seminar: 22 farmers and 2 farm service providers.

The Past, Present, and Future of Organics Organic Farming Conference: 8 farmers.

The Goal for the Advanced Grower Seminars was to present 4 seminars and receive evaluations from 15 participants from each seminar to report that the competitiveness of the specialty crops they produce has been enhanced or they will use the information presented to begin producing specialty crops. Four seminars were presented, one of which was a two-part seminar, and one of which was a conference with three presenters. Two of the seminars met the goal of 15 participants. The total number of participants for all seminars was 56, or an average of 14 per seminar. However, evaluations were not collected at one seminar (the organic farming conference), due to a lack of administrative oversight. Therefore a total of 48 evaluations, or an average of 12 per seminar were collected that showed the result of enhanced competitiveness of specialty crops.

Organic Farm Advisor Program: The goal for the organic farm advisor program was to fund 8 advisor-advisee partnerships, with evaluations from all eight advisees showing that the advising experience enhanced the competitiveness of the specialty crops they produce or assisted them in beginning to produce specialty crops. Seven advisor-advisee partnerships were completed. One additional partnership was approved but did not occur because the advisor did not have crops growing to demonstrate to his advisee before the project deadline due to an unusually cold spring. We have four partnerships scheduled for the 2014-2016 specialty crop grant period, for which the goal is five partnerships, so we expect we will exceed our goal for the 2014-2016 period.

### On-Farm Workshop Program:

The goal for the on-farm workshop program was to present 15 workshops, with 5 evaluations from each workshop reporting that the competitiveness of the specialty crops produced by the participants was enhanced or the participants will use the information presented to begin producing specialty crops. 18 workshops were presented. Attendance ranged from 2 to 33 participants and the average participation was 8.3 per workshop. 151 evaluations were collected that met the program goals.

The following chart shows that the number of farms in RI listed as “Chemical Free”, “Some Organic”, or “Integrated Pest Management” on the Farm Fresh RI website and the number of farms in RI that are certified organic at the time the grant application was submitted (2011) and when the project was completed. The goal was a 25 percent increase in each category. The goal was exceeded in every category except “certified organic”, and the average increase for all categories was 44%.

Year	2011	2014	% change
Chemical Free	50	88	+76%
Certified Organic	25	19	-24%
Some Organic	8	12	+50%
IPM	14	21	+50%
Total	97	140	+44%

## BENEFICIARIES

Evaluations completed by program participants showed that 56 seminar attendees, and 7 advised farmers, and 151 attendees of on-farm workshops expected increased productivity and profitability of their specialty crop farms in at least one of the following ways: improved farm sustainability, increased marketable yields, addressed concern for your own or your customer’s health, making products more desirable in the marketplace, and higher prices for products. Summaries of evaluations are attached.

University research and extension personnel attended some of the advanced growers seminars and on-farm workshops, which will result in transfer of information to additional farmers.

## LESSONS LEARNED

Advanced Grower Seminars: Attendance at seminars seems to be higher when the presenter is from outside Rhode Island or is viewed as an expert on a particular topic.

Farm Advisor Program: Continued publicity for the program resulted in increased interest in the program toward the end of the funding period.

On-Farm Workshop Program: The workshops have become a popular way for local farmers to socialize and learn from each other.

#### CONTACT PERSON

Michael Roberts, President

Northeast Organic Farming Association of RI

[michael.h.roberts@gmail.com](mailto:michael.h.roberts@gmail.com); 401-635-2346





NOFA/RI Soil Fertility Advanced Grower's Seminar with Derek Christiansen  
October 20 2013

Thank you for taking a moment to assist us in improving our programming.

I am a: 22 Farmer 2 Ag. service provider Other  
(explain) \_\_\_\_\_

On my farm, I currently use the following techniques:

- 22 cover cropping
- 5 biodynamic preparations or biological inoculants
- 13 soil testing
- 12 mineral fertilization
- 2 brix monitoring

As a result of this seminar, will you:

- 8 begin producing nutrient dense specialty crops (vegetables, herbs, fruit, etc.) that will be marketed as organic, chemical-free, or IPM?
- 16 improve your production of nutrient dense specialty crops (vegetables, herbs, fruit, etc.) that will be marketed as organic, chemical-free, or IPM?

Please check all reasons why you plan to use techniques learned at this workshop on your farm:

- 19 To improve the sustainability of your farm.
- 13 To increase the marketable yields of specialty crops grown on your farm.
- 15 To protect your own or your customer's health by producing safer food.
- 12 To extend your harvest and marketing season.
- 6 To achieve a higher price for your specialty crops.

Please rate the overall usefulness of the Soil Fertility Seminar:

Not useful	1	2	3	4	5	Very useful
				2	21	

What was the most valuable thing you learned today?

- soil inoculation
- nutrient fertilization-6
- crop specific needs-7
- nitrogen availability
- soil testing-2
- pricing/marketing-3
- variety selection-2
- economics of crops-2
- greenhouse fertility-2

Name: \_\_\_\_\_ Farm Name: \_\_\_\_\_

1. Check all areas for which you have received assistance:

- |                                                |                                                     |                                                  |
|------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> 3 vegetables          | <input type="checkbox"/> 2 pest and disease control | <input type="checkbox"/> 1 organic certification |
| <input type="checkbox"/> 2 leafy greens        | <input type="checkbox"/> weed control               | <input type="checkbox"/> record keeping          |
| <input type="checkbox"/> 3 herbs               | <input type="checkbox"/> season extension           | <input type="checkbox"/> 2 other: cut flowers,   |
| <input type="checkbox"/> 1 small fruit         | <input type="checkbox"/> post harvest handling      | tractor                                          |
| <input type="checkbox"/> 1 tree fruit          | <input type="checkbox"/> 1 marketing of organic     | use                                              |
| <input type="checkbox"/> 2 seedling production | <input type="checkbox"/> crops                      |                                                  |
| <input type="checkbox"/> 1 greenhouse growing  | <input type="checkbox"/> crop rotation              |                                                  |
| <input type="checkbox"/> 3 soil fertility      | <input type="checkbox"/> 1 whole farm planning      |                                                  |
| <input type="checkbox"/> 1 cover crops         | <input type="checkbox"/> 1 business planning        |                                                  |

2. List any specific skills you have learned from your advisor(s):

cut flower planning, harvesting and marketing

Propagation, vegetable production and marketing, season planning

soil test interpretation, fertility planning, disease control through nutrition

soil and nutrient work

medicinal properties of herbs, blends for teas, drying and processing of herbs, herb marketing and selling

how to drive tractor, attach implements, use to prepare fields

3. Which of the following results have you achieved as a result of participating in this program? (check all that apply)

4 Improved the sustainability of your farm

5 Increased marketable yields

3 Reduced concern for you own or your customer's health

4 Produced products that are more desirable in the marketplace

2 Justified charging a higher price for your products

2 Produced crops that you can label and market as certified organic, organic, IPM, or chemical-free

4 Other: adding a new marketing avenue; improved soil health; offer a value added product; how to prepare an application for organic certification

4. Please answer the following questions by circling the appropriate number.

Was your advisor available when needed? No 1 2 3 4 5 Yes  
1 6

Was your advisor knowledgeable about topics you needed help with? No 1 2 3 4 5 Yes.  
7



2012-2014 NOFA/RI CRAFT On-Farm Workshop Evaluation Summary

I am a:  66 Farmer       52 Aspiring Farmer     7 Ag. service provider  
 26 Farm apprentice or employee      Other (explain): \_\_\_\_\_

1. Check all areas for which you have increased your knowledge at today's workshop:

- 73 vegetable production
- 71 leafy green production
- 28 herb production
- 15 small fruit production
- 16 tree fruit production
- 51 seedling production
- 42 flower production
  
- 86 greenhouse growing
- 55 soil fertility
- 31 cover crops
- 41 pest and disease control
- 38 weed control
- 61 season extension
- 21 post harvest handling
  
- 41 marketing of organic crops
- 26 crop rotation
- 22 whole farm planning
- 24 business planning
- 12 organic certification
- 30 record keeping
- other:

2. List any specific skills you have learned from today's workshop:

12 mushroom production	2 pipe bending	1 precision seeding
9 seed saving	3 greenhouse construction	2 tools
7 composting	5 moveable greenhouses	1 making potting soil
2 succession planting	1 processing herbs	1 propagation
3 irrigation	4 succession planting	1 curing dahlia tubers
6 growing flowers in crates	4 crop support	1 harvesting techniques

3. Which of the following results do you expect to achieve as a result of participating in this program? (check all that apply)

70\_\_ Improve the sustainability of your farm

44\_\_ Increase marketable yields

18\_\_ Reduce your concern for you own or your customer's health

35\_\_ Produce products that are more desirable in the marketplace

21\_\_ Justify charging a higher price for your products

12\_\_ Produce crops that you can label and market as certified organic, organic, IPM, or chemical-free

Other:

5. Do you plan to:

54\_\_ Use techniques learned from this workshop to begin commercial production of specialty crops?

92\_\_ Use techniques learned from this workshop to increase or improve your production of specialty crops?

6. Please rate the overall usefulness of today's workshop:

Not useful	1	2	3	4	5	Very useful
	1	1	7	34	108	

# **Final Report Specialty Crop Grant RI Farm Bureau 12-25-B-1252**

## **Project Title: Using Social Media to Promote RI Specialty Crop Farms.**

### **PROJECT SUMMARY**

Social Media has exploded as the means of communication between many people in the past few years. Most farmers are not aware of how to use the Social Media (Facebook, YouTube, Twitter). The purpose of this project was to promote RI Agriculture and RI Farmers by using the Social Media.

It is important for farmers to get on the Social Media at this time because of the popularity of the medium. More and more people, especially young people, are using this medium to communicate. If farmers want to communicate with the younger generation, this is the way to do it.

### **PROJECT APPROACH**

In our Plan of Work we indicated we would do 20 short videos over a two year period to be posted on our FaceBook and Twitter pages. Last year we did 19 videos which featured farms that produce Specialty Crops. This past year we did 22 videos of Specialty Crops farms or topics related to Specialty Crops (marketing) for a total of 41 videos over the two year period. We also posted 21 stories of Specialty Crop farmers or related topics (recipes, information about vegetables etc.).

### **GOALS AND OUTCOMES ACHIEVED**

Videos were done on planting strawberries (by machine) (Salisbury Farm), planting Asparagus (Bettencourt Farm) (by hand), planting potatoes (by machine) (Young Family Farm). Several farms at the Burrillville Farmer's Market were featured discussing the growing season in general (it was pretty bad he beginning of the year). We showed how apple cider was made at the Phantom Apple Orchard. The owner of Phantom Apple Orchard is also the president of the RI Fruit Growers Association. She discussed the 100<sup>th</sup> anniversary of the RI Fruit Growers Association as well as the statewide Scavenger Hunt which promoted numerous farms in RI (fruit and vegetable farms). Farming Turtles (micro-greens) and Our Kids Farm discussed starting plants in greenhouses. We covered the activities on Ag Day at the Statehouse where the featured speaker was an apple farmer who discussed the marketing of apples in the state. The video of the Green Market Festival featured many farms that grow plants. The showcase of this festival

was a Natural Spiral where attendees to the festival could pick out plants and place them in a natural spiral. This helped them learn about local plants. We covered a “Food Matters” series which showed people how to preserve vegetables and how to peel winter squash. Institutional buying of local food (mostly produce) was covered and how to stop wasting food was covered. A video featuring several maple syrup farmers showed how maple syrup was made. Robin Hollow farm discussed growing flowers. Two Christmas tree farms were featured. Numerous Farmer’s Markets and the Specialty Crop farms who attend them were broadcast on our YouTube, Facebook and Twitter pages. These short videos (2 minutes to 15 minutes) were strung together to make a 30 minute TV show which was broadcast on the RI Farm Bureau TV show, “RI Farm Watch” which is broadcast on statewide cable TV.

Several farms were featured without videos. Schartner Farms (fruit, vegetables, nursery), Barden Farms (fruit, sweet corn), Hattoys (greenhouses, vegetables) Wishing Stone Farm (organic fruits and vegetables). The Facebook page featured many articles that encouraged people to buy fresh fruits and vegetables such as a Winter Squash Guide, the Benefits of Eating, Asparagus, Brussels Sprouts, Strawberries and Blueberries. There was an article about herbs and spices grown in RI. A Hop farm was featured. Other articles related to Specialty Crops were: Healing Landscapes, Spring Flower Show, How to Save Mums, and the RI Nurserymen and Landscapers winter meeting. There was an article about the benefits of vegetables in general.

The cover page of the Facebook page was changed frequently with colorful and appetizing pictures of fruits, vegetables and other plants.

The above interviews were conducted by the two consultants that RI Farm Bureau hired to help with the project. The Executive Director of RI Farm Bureau also conducted interviews and he edited all of the videos with equipment purchased from a previous Specialty Crops grant. One of the consultant’s primary task was to keep the Facebook page fresh. She posted numerous recopies to use on locally grown crops. The consultant ran ads to boost the viewership of the Facebook page. At the end of the project she conducted a survey to measure the impact of the Facebook page on viewers.

Several non-specialty crop farmers were interviewed, but those interviews were not paid for with grant funds. Those expenses were simply not listed in the final report.

**Videos can be seen in several ways.**

**Go to our Facebook Page <https://www.facebook.com/rifarmbureau>**

**Web Page [rifb.org](http://rifb.org) (Click Videos)**

**YouTube Page <https://www.youtube.com/user/rifarm>**

**There are over 100 videos on the YouTube Page. Most of them were funded with RI Farm Bureau funds only.**

Here are some examples of the videos done.

**Planting Asparagus**

[https://www.youtube.com/watch?v=1sngwweXxRo&list=UUuiQHCS84bRKg7vtF\\_S5HpA&index=31](https://www.youtube.com/watch?v=1sngwweXxRo&list=UUuiQHCS84bRKg7vtF_S5HpA&index=31)

**Our Kids Farm (greenhouses)**

[https://www.youtube.com/watch?v=vjd2WUCy9Qk&index=60&list=UUuiQHCS84bRKg7vtF\\_S5HpA](https://www.youtube.com/watch?v=vjd2WUCy9Qk&index=60&list=UUuiQHCS84bRKg7vtF_S5HpA)

**South Kingstown Farmer's Market**

[https://www.youtube.com/watch?v=T0Qa96pJX\\_s](https://www.youtube.com/watch?v=T0Qa96pJX_s)

**Growing Mushrooms in RI**

<https://www.youtube.com/watch?v=8OyINyfWYBI>

**Planting Potatoes**

<https://www.youtube.com/watch?v=j8nJ7A4Cmgc>

**Making Cider**

<https://www.youtube.com/watch?v=r5mb7deljTE>

**Potato Storage**

<https://www.youtube.com/watch?v=QojDQwxIPWM>

**South Kingstown Farmer's Market**

[https://www.youtube.com/watch?v=T0Qa96pJX\\_s&list=UUuiQHCS84bRKg7vtF\\_S5HpA](https://www.youtube.com/watch?v=T0Qa96pJX_s&list=UUuiQHCS84bRKg7vtF_S5HpA)

**RI Fruit Growers Celebrate 100 Years**

[https://www.youtube.com/watch?v=WWkPoIMHkRE&index=30&list=UUuiQHCS84bRKg7vtF\\_S5HpA](https://www.youtube.com/watch?v=WWkPoIMHkRE&index=30&list=UUuiQHCS84bRKg7vtF_S5HpA)

**Farm Scavenger Hunt**

[https://www.youtube.com/watch?v=Nt0HeYHfoes&index=29&list=UUuiQHCS84bRKg7vtF\\_S5HpA](https://www.youtube.com/watch?v=Nt0HeYHfoes&index=29&list=UUuiQHCS84bRKg7vtF_S5HpA)

**Green Market Festival**

[https://www.youtube.com/watch?v=1sngwweXxRo&index=31&list=UUuiQHCS84bRKg7vtF\\_S5HpA](https://www.youtube.com/watch?v=1sngwweXxRo&index=31&list=UUuiQHCS84bRKg7vtF_S5HpA)

**Growing Season**

[https://www.youtube.com/watch?v=YuL2Pj5OLuE&list=UUuiQHCS84bRKg7vtF\\_S5HpA&index=35](https://www.youtube.com/watch?v=YuL2Pj5OLuE&list=UUuiQHCS84bRKg7vtF_S5HpA&index=35)

**Stop Wasting Food**

[https://www.youtube.com/watch?v=21SvUBI6KCg&list=UUuiQHCS84bRKg7vtF\\_S5HpA&index=25](https://www.youtube.com/watch?v=21SvUBI6KCg&list=UUuiQHCS84bRKg7vtF_S5HpA&index=25)

**Small Farm Food Distribution**

[https://www.youtube.com/watch?v=g3vD4EAt7bk&index=41&list=UUuiQHCS84bRKg7vtF\\_S5HpA](https://www.youtube.com/watch?v=g3vD4EAt7bk&index=41&list=UUuiQHCS84bRKg7vtF_S5HpA)

**Robin Hollow Flower Farm**

<https://www.youtube.com/watch?v=HjxeVIQ0cbs>

**Christmas Farm**

<https://www.youtube.com/watch?v=-OpQKkF4hcY>

**Results:**

The traffic on our Facebook page increased from 528 “Likes” in April, 2013 to 1,227 “Likes” in December Of 2013 or an increase of 132%. Our Dailey Total Reach saw days in April where we reached 6,505 and as high as 14,502 in November. Dailey Friends of Fans ranged from 135,147 to 262,209 during the period measured (April-July). There were 293 Twitter followers on April 1, 2013. On December 31, 2013, there were 410, an increase of 40% in 9 months. In March of 2014 we had 1,285 “Likes” on Facebook and we had 455 Followers on Twitter.

**Survey**

A survey of Facebook viewers was conducted using Survey Monkey. There were 103 participants compared to 35 when we did the survey last year. The first question was “Have you learned any new information about local farms and local farmers as a result of the Facebook posts on the RI Farm Bureau’s page?”

Results: 88% Yes, 12% No. Second question: Are you more likely to buy locally grown produce or visit a local nursery for purchases of plantings and flowers? Results: 97% Yes, 1% No and 2% Maybe. Third Question: The RI Farm Bureau would like to know specifically what you have learned from their Facebook posts. Please check all that apply and feel free to ad others.

**Results:**

I learned a new recipe	46%
I learned about a seasonal crop didn’t know before	44%
Learned the role of RI Farm Bureau	54%
Learned about relevant news involving farms	46%

<b>Benefits of buying local</b>	<b>68%</b>
<b>Learned about a farmer I did not know about</b>	<b>71%</b>

It should be noted that the primary purpose of this project was to expose more farms to the public on the Social Media. Note that 71% of poll respondents stated they learned about a new farm they did not know about before. Also note that 68% said they learned the benefit of buying local.

Here are some comments the respondents made:

Farmers provide fresh food which is better for you.

Just keep spreading the word on how important farming is to our lives

You guys do great work

Please keep this going.

It is such a big help.

You are doing a great job as it is. Thank you.

Local is the best!

### **BENEFICIARIES:**

The primary beneficiaries of the project were the farmers who were put on the social media. The videos that we did will be on line for a long time and continue to expose those farmers. Note that in the poll we did 71 % of the respondents said they found out about a farm they did not know about. These farms would not have got their business if it weren't for this project.

The customers were also the beneficiary because they learned about crops they had not heard of before, learned about relevant news involving farms, learned about a farmer they did not know about and learned a new recipe.

### **LESSONS LEARNED**

The only problems we had were trying to follow the Timeline we established last year. We could not get farmers to perform the activities we wanted to (spraying and irrigating) We also had many farmers who wanted to be on the Facebook page and they were Specialty Crop farmers, so we felt obligated to put them on. We did show farmers planting various crops by hand and machine and we showed sales at several Farmer's Market and Roadside Stands. Storage of potatoes was shown last year. While we did not show crops growing in the winter, we did show crops being grown in greenhouses. We found that the ads increased our traffic quite a bit. Original plans did not call for ads, but we found them invaluable.

The overall objective of the project was to increase the presence of RI farmers on the Social Media and to educate the public in RI, about Specialty Crops. We planned to

do this by interviewing 20 farmers over two years and putting them on YouTube, Facebook and Twitter. We interviewed nearly 50 farmers (about 45 different ones (some we did twice) and did 41 videos. We believe the survey taken says it all where **88%** said they **learned something new** and **97%** said they were more **likely to buy local**. On a check-off list over 71% of the respondents to the poll said they learned about a **new farmer** they did not know about before and 68% said they learned the **benefit of buying locally**. At the beginning of the project we had 69 “likes” on Facebook. At the end of the project we had 1,127 for an increase of **1,533%**. On Twitter we went from 170 “Followers” to 410 “Followers” for an increase of **141%**. At a conference, an American Farm Bureau employee in the PR program publicly congratulated RI Farm Bureau on its excellent FaceBook page. RI Farm Bureau received an Award for Excellence in Public Relations from the American Farm Bureau this past year. This program was a huge success!!

### **CONTACT PERSON**

Alfred Bettencourt  
16 B Nooseneck Hill Rd  
West Greenwich, RI 02817  
401-385-3339  
401-556-7605

## **FINAL REPORT**

### **PROJECT TITLE**

The Genesis Center, Community Garden Expansion to Increase Education and Access

### **PROJECT SUMMARY**

Provide a background for the initial purpose of the project, which includes the specific issue, problem, or need that was addressed by this project.

The Genesis Center project will provide education and access as it relates to the growing, consumption, and nutritional benefits of specialty crops. The project covers five key components: curriculum development surrounding preparing, planting, and maintaining a community garden; curriculum development and educational services pertaining to the use of locally grown produce in our Culinary Arts training program; creation of access point for locally grown produce that will add to the competitiveness of such crops; nutrition education including the incorporation of healthy snack alternatives in our child care program; and the pilot of a horticulture/floriculture social enterprise.

Establish the motivation for this project by presenting the importance and timeliness of the project.

A study by the Center for Food and Justice at the Urban and Environmental Policy Institute found low-income neighborhoods have fewer supermarkets and outlets to buy groceries. While individuals make choices about their eating and exercise habits, the environment in which they live affects their choices. Research has shown that with more buying options, individuals were more likely to meet dietary guidelines for fruit and vegetable consumption and fat intake. Conversely, the lack of access to healthy foods can have adverse effects on individuals' health. A diet poor in fruits and vegetables increases the risk of diabetes, heart disease, cancer and other illnesses that disproportionately affect people of color. Poor dietary behaviors also contribute to the obesity epidemic, which is increasing at an alarming rate nationwide. (source: <http://www.nhi.org/online/issues/147/healthyfoods.html>)

The Genesis Center, located on Providence's West End, provides education and child care services to low-income residents. More than 90% of the families served through the Center live below the poverty level; 97% are minorities; and approximately 50% are receiving some form of public assistance. Access to local produce is limited and many families rely on lower-cost unhealthy alternatives.

The Genesis Center has a garden space measuring 120' x 120'. The growing area consists of 8 raised beds totaling approximately 400sq ft of growing area. Additional space is present in the form of tilled and bordered growing beds. While this area exists in its current form, it is important to implement the following in order to produce a useable and impactful amount of specialty crops and learning opportunities around the production of those crops: EPA GREEN compliance; horticultural calculations; sustainable balance; water quality issues; landscape site assessment; plant materials; composting; pest and integrated pest management; weed management; irrigation techniques; and fertilization.

If the project built on a previously funded project with the SCBGP or SCBGP-FB describe how this project complimented and enhanced previously completed work.

N/A

## PROJECT APPROACH

Briefly summarize activities performed and tasks performed during the grant period. Whenever possible, describe the work accomplished in both quantitative and qualitative terms. Include the significant results, accomplishments, conclusions and recommendations. Include favorable or unusual developments.

The overall activities completed in year1 and 2 are as follows:

- The Garden Kickoff took place in April 2012 and served as the start to our Expansion project. 51 individuals participated in the event, and surveys reflected positive attitudes about the event. Throughout the year 45 Culinary Arts students participated in learning activities about community gardening and using locally sourced produce. The culmination of this curriculum component came with the Top Chef event where teams competed in a cooking competition using locally sourced produce.

- A series of cooking demonstrations were held throughout the year that focused on transforming traditional foods of our learners into healthier alternatives. These included: sushi, tacos, smoothies, healthy pizzas, and snacks for children.

- As part of our community outreach, the Culinary Arts students presented “sampler baskets” of our produce to ten internship sites. Students also attended farmers’ markets with FarmFreshRI as host between June 2012 and September 2012.

- Throughout the second year 45 Culinary Arts students participated in learning activities about community gardening and using locally sourced produce, with a highlight on utilizing the urban gardening curriculum. This curriculum highlights ways to maximize specialty crop production, compost with scraps often generated by culinary production facilities, and involved workshops on building raised beds, and gardening for chef/restaurant operators (how to utilize industrial space for specialty crop production). Topics also covered were irrigation, installing trellis, seasonality, and preservation techniques (pickling, salt curing, canning, vacuum sealing). Greenhouse lessons were led by south side community land trust in their 800 sq ft greenhouse.

**The series of cooking demonstrations held throughout the year focused on transforming traditional food from the following cuisines (representing learners in our community) into healthier alternatives: asia (sushi), latin America (tacos), America (smoothies), Europe (healthy pizzas), and an assortment of snacks for children. Instead of taking traditional means to emphasize these projects, locally produced (often in our own garden) specialty crops were utilized in all recipes. Recipes were developed utilizing items that can be found in farmer’s markets, and are produced domestically. This often required a substitution to be made from the traditional ingredients of ethnic items, and we discussed, throughout the workshops, how and why those substitutions benefit the learner.**

- As far as garden infrastructure work, students and staff worked on building raised garden beds. A shed/grow house was installed, water and irrigation was installed. Raised beds, trellis, hoop houses were installed. Fencing around the garden was repaired.

- Present the significant contributions and role of project partners in the project.

South Side Community Land Trust – Irrigation and Water Consultant, Compost and General Consultants, Curriculum Dev (2 workshops, 25 attendees, 1600 sq ft garden irrigation)

The Providence Plan (Youthbuild) – construction workshops for the public and utilized their skill to increase the capacity of our growing area through trellis and raised bed construction (4 raised beds, culinary herb garden, trellis, workshop 25 attendees)

The Marche Hare Farm – Curriculum Consultants (10 lessons)

Narragansett Improvement Company – Water main line install, permitting, and general construction know-how (\$3000 in-kind work, 3 days of onsite crew)

URI Nutrition Outreach – Gardening and Nutrition Consultants, Workshops and Planning (4 workshops, 50 attendees)

Johnny Seed – Seed starting and planting experts (50 varieties of plants, growing medium)

White Barn Farm – Crop Selection, Layout Planning and Weed Prevention, soil testing

Bill Bombard, Director Providence Public Works – Provided Expert knowledge and networking for sidewalk and garden zoning/compliance (5 hours)

Amos House – Grow house/Shed Construction, Permitting Knowledge (12x12 building construction)

Farm Fresh RI – access to growers and consumers, farmer’s market access, and curriculum dev, publicized workshops (3 farmers markets, 2 workshops, 75 participants)

The MET School – publicized to students, faculty and families for workshop days (30 participants)

#### GOALS AND OUTCOMES ACHIEVED

Supply the activities that were completed in order to achieve the performance goals and measurable outcomes for the project.

- Workshops given to neighborhood residents, chefs, culinary students, and children focusing on the practical benefits of using locally grown produce highlighting: food safety, such as the diminished risk of batch cross contamination issues in warehouses resulting in e.coli/salmonella outbreaks; increased quality (domestic and locally produced fruits and veggies have better taste, freshness, higher nutrient levels and often have increase shelf life); and greater variety and availability.

- Organized trips to farmer’s markets and workshops by FarmFresh and URI Nutrition

- Deliberate and informed development of the Center’s garden to enable us to increase our production and provide a “learning lab” for our students and families

so they could practice the same techniques in their own backyards or community gardens.

-Development of a core curriculum related to our garden focused activities

**Nutritional workshops were conducted with special emphasis given to “whole” foods and the positive benefits of consuming locally sourced produce, follow up evaluations and assessments and more than 75% of the respondents reported increased knowledge, awareness and willingness to utilize specialty crops.**

**Genesis Center students will evaluate meals prepared by student chefs that increasingly use specialty crops. Respondents to surveys reported that the meal quality increased with the use of fresh, locally grown, and seasonal specialty crops incorporated into the meals.**

**Students participated in pre-and post- questionnaires regarding food purchasing and consumption habits. As a result of culinary and specialty crop training, their awareness and use of specialty crops increased by 50%. They reported buying more at the grocery stores, and attending local markets, and growing their own specialty crops more frequently.**

If outcome measures were long term, summarize the progress that has been made towards achievement.

N/A

Provide a comparison of actual accomplishments with the goals established for the reporting period.

The following were completed from the list of goals:

- Annual Genesis Garden “Top Chef” Event\*
- Garden Kick-off Planting Event\*
- Culinary Students will begin educational component of specialty crop project
- Culinary Students will care for and use garden items for meal preparation
- Irrigation System installed
- Healthy meals integrated into Child Care Center\*
- Nutrition workshops delivered to general Genesis Center population\*
- Genesis Center students take pre-survey around nutritional habits\*
- Genesis Center students take post-survey around nutritional habits\*
- Gardening Curriculum Developed\*
- Genesis Center students learn about farmer’s markets and are encouraged to attend
- Culinary interns present “sampler baskets” to internship hosts\*

- The floriculture project was changed to a Wild Flower and Herb Garden Horticultural Project
- Greenhouse was changed to a seed sprouting growing room and shed. Hoops were installed on raised beds to substitute for the greenhouse environment if needed.

□ Clearly convey completion of achieving outcomes by illustrating baseline data that has been gathered to date and showing the progress toward achieving set targets.

- Garden Kick-Off event takes place
  - 20 students participated (100% complete)
- Community Gardening curriculum
  - 10 lessons developed and coursebook created(100%completed)
- Culinary Arts students will participate in the learning activities designed around specialty crops
  - 45 culinary students (formally tested and assessed) (100%completed)
- Nutritional workshops will be conducted with special emphasis given to “whole” foods
  - 100 Genesis Center Students (100% completed)
- Genesis Center students will evaluate meals prepared by student chefs that use specialty crops.
  - 100 students participated (100% completed)
- Students will participate in pre-and post- questionnaires
  - 40 Students (80% completed)
- Culinary Arts interns will present host site with a “sampler” of produce grown in the Center’s garden
  - 10 internship sites presented with samples (100% completed)
- The Genesis Garden “Top Chef”
  - 10 students to participate (100% completed)
- Students, as part of class assignment, will attend at least one local farmer’s market
  - 50 students attended (100% completed)
- Pilot project get underway to grow and market specialty crop
  - 10 students participated (To be 100% completed by end of May 2014)
- Growing capacity increased in our garden
  - Capacity quadrupled based on methods implemented from this project

## BENEFICIARIES

- Provide a description of the groups and other operations that benefited from the completion of this project's accomplishments.

The entire Genesis Center community will benefit from this project. There was also a benefit to the surrounding community through dissemination of nutritional information and the promotion of healthy dietary habits. In addition, the community garden can serve as a model for other organizations, neighborhoods, and families.

The Genesis Center serves over 700 individuals and families per year, and with the upcoming implementation of an integrated program platform that will increase capacity, the Center will be serving more individuals and families in need of services.

Culinary professionals are also specifically impacted because of the involvement of our culinary arts students who acted as interns in over 20 area businesses.

- Clearly state the quantitative data that concerns the beneficiaries affected by the project's accomplishments and/or the potential economic impact of the project.

- Over 45 culinary students participated
- Over 700 Families and Individuals associated with the Genesis Center / year
- Over 10 Local chefs /restaurants (culinary internship sites)
- FarmFresh Harvest Kitchen Participants (15 people)
- More 20 Met School Students and families participated

## LESSONS LEARNED

- Offer insights into the lessons learned by the project staff as a result of completing this project. This section is meant to illustrate the positive and negative results and conclusions for the project.

Lesson learned include the implementation of an urban garden project without irrigation – in year 1, our production capacity was severely limited because of the lack of water. Year 2 proved more bountiful as we were able to “borrow” water from a neighbor during periods before the irrigation system was installed. This proved costly though, because it was traditional hose watering, and not the efficient drip line irrigation that we planned and installed as part of our irrigation system. Also, the timing of the irrigation system was not automatic (timer based) so it required more manpower than initially anticipated. Also, the floriculture project proved more intensive than earlier anticipated, so we replaced with a wildflower and herb garden and workshop.

- Provide unexpected outcomes or results that were a effect of implementing this project.

There were no unexpected outcomes.

- If goals or outcome measures were not achieved, identify and share the lessons learned to help others expedite problem-solving.

Water install for a community garden in the city of Providence is a laborious process that requires the following steps to be completed in exactly the following order:

1. Determine plot number and address for water service, per city land records.
2. Contact ProvWater with plot number to see if there is a curbstop/water line access.
3. Complete all paperwork for “New Water Service” and “Plumber’s Package” for ProvWater. Submit payment for a water meter (size estimated according to needs).
4. Have a licensed plumber spec all parts to be used (permits will require these part numbers and types).
5. Obtain a letter of water availability from ProvWater (this letter states that there is a water line from the “main” to the “curb stop”). If no water availability – see next step. If there is an existing curb-stop and line from the water main to the property, proceed to step 7.
6. Contract with the city and Public Works to obtain a permit to break ground on the street, and contract ProvWater to install a water line from main to the curbstop. (takes several weeks to schedule)
7. Obtain a sidewalk permit from Public Works to break ground on the sidewalk and restore. Will need a licensed contractor for this permit paperwork.
8. Go to city of Providence with the sidewalk permit and ProvWater paperwork to obtain a permit from the Plumbing department for the installation of a water line from the curbstop to the site of installation on the property. (licensed plumber should do this personally)
9. Break ground on sidewalk and install line from curbstop to the property.
10. Get the line installed by providence plumbing inspector before the line is covered.
11. Get ProvWater to inspect the curbstop.
12. Call ProvWater to schedule the installation of the water meter.
13. Have the plumber rough in the backflow preventer and other pipes, leaving the proper sized spacing for the meter to be installed. (ProvWater will not install meter unless the backflow preventer is in place)
14. Once meter and backflow are in, get final inspection and continue with irrigation plans.

We have completed the project and incurred all associated costs before 4/1/2014, but it was difficult due to an unusually long and harsh winter that delayed the onset of the work.

## CONTACT PERSON

- Name the Contact Person for the Project • Telephone Number
- Email Address

JoshuaRiazi [Jriazi@gcenter.org](mailto:Jriazi@gcenter.org) 401-781-6110

Shannon Carroll [Scarroll@gcenter.org](mailto:Scarroll@gcenter.org) 401-781-6110

## Final Report

**Project Title: Rhode Island Agricultural Practices (RIGAP):  
Expanding, Updating and Promoting**

Project Co-Director: Lori F. Pivarnik, Ph.D.

Award No./Total Award 12-25-B-1252/\$21,534

Project Award: April 1, 2012 to March 30, 2014

### **Project Summary – Background, Importance**

The Rhode Island Good Agricultural Practices program, a partnership between the University of Rhode Island and RI Department of Environmental Management/Division of Agricultural, was established in 2002 with support of a CSREES/USDA grant. This program has been sustained in Rhode Island through personnel and financial commitment of URI and RIDEM/Division Agriculture (through the USDA Specialty Crop program). Compared to farms nationally, RI farms are small: 84% only 1-99 acres and 16%, 100-499 acres. While many farmers engage in direct sales to consumers through on-farm retail (roadside stands), pick-your-own operations and/or local farmer's markets, the larger farms also market to regional/local grocery stores, restaurants and school food service operations as well as wholesale.

The on-farm, RIGAP audit used to determine RIGAP certification and recertification includes specific standards that are designed specifically for small farms and addresses the on-farm retail operations. The RIGAP audit is reviewed yearly and has been updated and revised to reflect current areas of concern. However, with the passage of the Food Safety Modernization Act(FSMA), the current RIGAP program will need to be modified/updated for many farmers and some farmers/wholesalers/processors may need to start preparing for incorporation HACCP-type preventive controls and food safety plans into their operations. At minimum, the RI farmers need

to be aware of the likely impacts FSMA and the rules promulgated on the produce industry in Rhode Island.

Growers have begun to realize that the control of food safety hazards associated with produce need to be addressed. RI growers that had been sitting on the sidelines have been showing more interest in the educational RIGAP programing and potential certification. The needed outreach efforts described in this project will build on the work that had been previously funded which has included training sessions for growers and on-farm consultations for growers

to assist them in preparing for the audit conducted by RIDEM, Division of Agriculture personnel. In an effort to address issues of concern, remain current in course content and discuss changes/modifications in the audit form or training, project personnel meets and reviews the program efforts. The RIGAP program must begin to integrate information for growers regarding the federal regulations/rules that may impact the sustainability of the agricultural businesses in this state.

The project has continued to be timely and important for two reasons. First, the interest in this program has been growing due to the Farm to School initiative. All Rhode Island school districts are participating at some level by incorporating locally grown fruits and vegetables into their lunch program. However, a requirement to sell produce to schools managed by these foodservice operators is to be GAP certified. The operators recognize and accept RIGAP certification as a condition of sale. Second, the RI GAP program provides the opportunity necessary to be proactive in addressing food safety concerns for small growers and, thereby, preparing them for implementation of the federal food safety regulations. While many of RI farmers may be “exempt” from regulatory mandates, buyers have been, and will continue to be, requiring more stringent on-farm GAP food safety programs. Due to the developing safety standards for fresh produce that could impact the food agricultural industry in RI, it is imperative that the growers are kept informed and updated from the beginning – before FDA rules are in place. The RI GAP program has prepared our growers to “take the next step” in produce safety due to the long standing proactive approach of this program. Now, more than ever, this program needs support in an effort to keep RI agriculture viable and allow for its potential expansion as the desire for locally grown produce continues to grow. Therefore, the propose of this project was not only to continue to provide GAP training and opportunity for new certification and recertification for existing RIGAP farms, but provide growers with the information and resources they need to address the new federal food safety act and FDA’s new authority.

### **Project Approach**

RIGAP, implemented under this program, has been successful due to the on-going partnership between URI and RI DEM/Division of Agriculture. This collaboration for implementation of RIGAP has been in place for over 10 years. Responsibilities are shared equally with URI administering training and outreach efforts and RI DEM managing the on-site audit and issuing yearly certificates. The project partners have met 1-2 times/year to review the status of the program and the program resource materials – including the RIGAP audit and to address any issues of concern. In addition, updates regarding the status of growers during the growing season are made regularly by the RIDEM RIGAP inspector via telephone and e-mail. Members of the project team communicate on a regular basis about project activities. The URI student brought outreach materials (English and/or Spanish) to a variety of Farmer’s Market venues and was directly supervised by Dr. Lori Pivarnik.

This project was very successful in accomplishing the activities/tasks that were delineated in the proposal. The following work and results were accomplished:

- RI farmer contact list was expanded, with the help of Farm Fresh RI, and is now comprehensive and routinely updated. This effort now allows the RI GAP partnership to better contact all farmers in RI without regard to size and scope of the operation.

- As indicated above, advisory group meetings were conducted. The audit and guidelines were reviewed and modified to reflect, in some cases, a more rigorous approach to some key critical issues. In addition, the implementation of a food safety plan, while not critical or required for the RI GAP program, is now part of the audit – an opportunity for further education.
- Spring 2013(March) RI GAP training attracted 26 participants reflecting 11 farms (as small as 0.5 acres), 2 Farmers Markets managers as well as academia and regulatory. The participants rated the sessions using a 5 point Likert evaluation scale (1=strongly disagree and 5=strongly agree) focusing on questions of content understanding and usefulness of the training. The overall rating of the workshop was  $4.30 \pm 0.41$  (N=17). One farmer signed on to be part of the RI GAP certification program, others indicated that they intended to become part of the program. However, this farmer has not yet passed final audit and others did not come forward. Those that were undecided about certification did indicate that they would be implementing some strategies presented at the workshop to enhance food safety on their farm. Ten (10) out of 17 farmers that submitted the evaluation indicated that they would be implementing some of the on-farm food safety principles presented in the workshop and 10 indicated that would be interested in learning more about writing a food safety plan. In addition, training was modified to include updates in the areas of key produce-related outbreaks and new, emerging microbial issues and more emphasis on records and food safety plans. In addition, the FDA FSMA requirements for this audience and the proposed Produce Safety regulations were discussed. Due to the draft status of the rules, the project director, rather than a FDA representative, incorporated information into the RI GAP training.
- Fall 2013 (November) RI GAP training attracted 16 attendees reflecting 12 RI farms, 1 academia, 1 RI Division of Food Protection and 1 Division of Agriculture. All resources were updated as needed. Participants rated the training using the same evaluation as in the spring, 2013. The questions, focusing on content and understanding, resulted in an overall rating of  $4.25 \pm 0.42$  (N=11) and of those who submitted the evaluation, 9 indicated that they would be implementing food safety strategies presented in the workshop and 9 indicated that they would be interested in learning more about writing a food safety plan. Three had indicated interest in the RI GAP program.
- Yearly recertification for all farms was completed. Unfortunately there were no new farms that entered the program. RI GAP farms are at 35 – a decrease from 40 when the project was written – due to farms closing and some not recertified due to non-compliance with audit. However, the issue of certification resulted in a new approach by the project partnership which has resulted (from the number of RI GAP workshop participants) in a much more robust outreach effort and more farmers with important on-farm food safety knowledge. As a result, a key adjustment to our outreach was to begin to move the focus of the training announcement from certification to education and awareness since both training participation and interest in RI GAP certifications had been decreasing. Since our program is directed to small and very small farmers, many would be exempt from proposed regulations and, currently, only participate in direct consumer marketing through roadside stands. Participants leave the training with

either a commitment to RI GAP certification or with the ability to do their own assessments of their farm practices that will help prevent any food hazards from occurring. This new approach is an effort to reach those farmers who need information but do not yet feel the need to obtain and maintain RI GAP certification. The project directors realized the importance of reaching small farmers with educational resources in hopes that farmers will implement some on-farm food safety behaviors.

- A new on-farm specialist has been trained and can now do outreach with farmers. In addition, the specialist is integrated into the workshop training. A terrific addition to our RI GAP advisory group.
- Consumer outreach was very successful during this project – particularly in year 2. The student hired for 2013 was a conducted an excellent outreach effort for spring/summer and fall 2013. There were 11 markets and a total of 19 visits conducted over this period with an estimated 250 and 100 consumers reached during the summer and fall, respectively. There were 1,557 resource materials distributed. In addition, the student compiled a RI harvest calendar – modified from Farm Fresh RI and the Connecticut Department of Agriculture – at the end of the project. Once it is reviewed it will be duplicated and used for consumer outreach.

### **Goals and Outcomes Achieved**

The overall goal of this project was to help maintain RI agricultural viability by 1) continuing to offer Good Agricultural Practices training to RI farmers as well as the RIGAP certification and recertification 2) provide updates regarding the new food safety regulations and 3) educating consumers about RIGAP and safe production and handling of locally grown produce. The RI GAP partnership has clearly accomplished those goals as indicated above. All outputs/outcomes expected were generally achieved.

1. RI GAP training was modified to provide growers with information regarding provisions of the FSMA act and the FDA produce safety and prevention/controls rules. All GAP training is offered to the entire agricultural community. The advisory group determined that separate update seminars would not be feasible and that integration of this information into the RI GAP training would be more appropriate until regulations are finalized.
2. Critical to the success of this program was the training of a new agricultural specialist to conduct on-farm visits.
3. Consumer outreach regarding the RI GAP program was accomplished through the presence of display and resource materials at farmers markets. Records were kept reflecting resources distributed.

4. RI GAP training evaluation was completed at each training session and, through self-assessment, reflected good understanding of GAP principles and intent to implement on-farm food safety strategies taught in the workshop. However, since there were no new certifications for during the duration of this project, there were no on-farm visit requests or new RI GAP audits.
5. Thirty-five (35) farmers were recertified in the RI GAP program. We had hoped to increase participants 5-10% but this did not happen. However, participation in GAP workshops increased and the project coordinators view this accomplishment as important and increasing participation in the certification program (see lessons learned).

### **Beneficiaries**

The potential beneficiaries of this program include both the farmers and RI consumers, particularly the children in schools. All districts currently have some level of a farm to school program. The impact of this program on these target groups has been stated previously. The presence at farmers markets impacted approximately 350 consumers and resulted in over 1500 resource materials about RI GAP and produce safety being distributed. Thirty-five (35) farms were recertified and, therefore, continue to conduct business in those venues that required RI GAP certification. They also were able to market themselves as RI GAP certified with the RI GAP signs provided to them by this project. There were forty-two (42) participants in the 2013 classes that included representation from 23 farms. Results of evaluations indicated that there was an understanding of RI GAP principles and intent to use these strategies to enhance on-farm food safety.

### **Lessons Learned**

Clearly, the most important lesson learned during this project has been in “approach” to our target audience – small farmers. While there were not new certifications, there were many workshop participants. This fulfills the most important purpose of the program which is promoting and implementing food safety principles on *all* farms.

The workshops/educational opportunities of RI GAP should be “marketed” as a great opportunity to learn about any food safety issues that farmers may face growing local food and to familiarize them with what is happening nationwide. Attendance at this training would also be the first step to allow farmers to become RI GAP certified or just a chance to become familiar with what expectations may be if small farmers want to expand or sell to RI schools. It is an opportunity for education - something that farmers can no longer ignore. Participants will leave the training with the ability to do their own assessments of their farm practices that will help prevent any food hazards from occurring. GAP training will be marketed as an opportunity to give farmers important food safety information regardless of whether they choose to become RI GAP certified. This approach will be firmly imbedded in the approach for new projects.

### **Contact Person**

Lori F. Pivarnik, Ph.D.  
Coordinator Food Safety Outreach/Research  
University of Rhode Island  
Nutrition and Food Sciences Department

401-874-2972  
pivarnik@uri.edu

## **Farm Fresh Rhode Island Final Report** 12-25-B-1252

### **Project Title**

Enhancing the Online RI Farm Database

### **Project Summary**

This project worked to ensure the accuracy and breadth of the information in the online RI farm database at [www.farmfreshri.org](http://www.farmfreshri.org) by getting current farm data from more RI specialty crop growers. A mobile application for viewing the specialty crop farms' information was created, which lists farms, farm stands and farmers markets, ranked by proximity of the user. The website server was changed to one with more storage space to increase farmers' sites and accommodate more users and more content.

Rhode Island is home to hundreds of farms that grow specialty crops but the local marketplace for these foods, where direct sales maximize profitability, is not as established or accessible as that for non-local foods. Food purchasers, both individuals and businesses, need information about who's growing what and where and how to get it. Given these access barriers, Farm Fresh created a website that is a comprehensive database of RI farms, indexed by foods grown, season and how to buy each farm's food. The website reduces the upfront costs of finding local foods and has created countless new relationships between farmers and buyers in the few years it has been online. Over three hundred RI farmers also now maintain their own farm data.

The Online RI Farm Database is an iterative project, building always on its prior versions to move towards fully accuracy and functionality. Given the constant flux of farms, markets and other retail specialty crop outlets, coupled with the rapid pace of technology expansion, the process of keeping the database accurate and useful is ongoing. For example, the Farm Database has been adapted for use by smartphone and similar hand-held devices. This modification built on the existing platform, and with some programming, now directs mobile users to a version of the site that works best for those devices.

### **Project Approach**

The [www.farmfreshri.org](http://www.farmfreshri.org) farm database is a public resource that promotes the purchase of locally grown foods in Rhode Island. Communicating the farm and food information as clearly as possible streamlines local food sales. The website has so far generated dozens of new business-to-business purchasing relationships with local farms, provided key information for journalists bringing media attention to RI farms, and given thousands of Rhode Island eaters the tools to buy fresh foods directly from the farms that dot their home state's landscape. Furthermore, it enables buyers to increase demand for local foods from suppliers further up the purchasing chain, in a

way that opens up larger markets to RI specialty crops, through local purchasing relationships that result are more direct and financially viable for farmers. **July 2012 was the busiest month of the past year. There were 131,000 unique visitors to the website. Specific farm, food and market pages were viewed 375,000 times. Even during the slowest month of the year, January 2012, there were still 54,000 unique visitors looking for winter farmers markets, CSA sign ups and other RI farm information.**

The Local Food Guide does not focus on any one specialty crop, but instead aims to promote consumption of the wide variety of fresh fruits and vegetables produced by Rhode Island farmers. The website allows consumers to find which farms grow the type of produce they are looking for. This holistic approach, having all of the produce promotion in place, broadens the appeal of the website to a wider audience.

The [www.farmfreshri.org](http://www.farmfreshri.org) project began by taking RI Division of Agriculture farm data and making it searchable online. Farm Fresh RI editors update the database regularly as we hear from buyers and farmers that farms have changed or no longer exist. Farmers can also keep their individual farm information up to date and can use their webpages on the site to promote their specialty crops. Due to lack of funding, the RI Division of Agriculture is unable to consistently conduct surveys to update the data. However, the [www.farmfreshri.org](http://www.farmfreshri.org) website enables regular updates by farmers that benefit buyers, researchers, policymakers and Division of Agriculture staff. **During the past year, 107 farmers have updated their own farm information, 202 farms have had their information updated by Farm Fresh staff. Twenty-nine new Rhode Island specialty crop growers have been added to database, and 11 inactive farms have been removed.** Continued outreach to farmers and buyers will continue to ensure the accuracy of the database and its usefulness as a resource.

The Online RI Farm Database is an iterative project, building always on its prior versions to move towards fully accuracy and functionality. Given the constant flux of farms, markets and other retail specialty crop outlets, coupled with the rapid pace of technology expansion, the process of keeping the database accurate and useful is ongoing. For example, the Farm Database has been adapted for use by smartphone and similar hand-held devices. This modification built on the existing platform, and with some programming, now directs mobile users to a version of the site that works best for those devices.

As the database has become more and more popular, there have been increased demands upon Farm Fresh RI in providing comprehensive, accurate information for the growing number of constituents and users. There have been requests from many farmers and users for enhancements. One frequently suggested example is in-depth farm-to-chef resources to help facilitate direct connections and better understanding. RI has a strong cadre of chefs who look to source RI-grown food for its superior quality and the availability of unusual varieties. These profiles require photos and in the coming years, will begin to require media such as Facebook, Twitter and more.

The swift development of in the internet mobile web devices such as iPhones, iPads and more has led the need for constant website maintenance and enhancements, such as for adaptation to smaller, mobile screens and 3G connectivity. Farm Fresh, with the support of a Specialty Crop grant, will be adapting the website for more media applications, more platforms and more devices. The quick evolution of this technology necessitates highly developed website programming.

o As Farm Fresh RI engages in implementing these improvements, as well as all other organizational activities, we will make certain to follow state and federal guidelines by clearly,

definitively separating fund-eligible specialty crops from non-eligible crops in our organizational files and materials. To this end, we will educate project staff to ensure that all Farm Fresh RI employees understand that Specialty Crops Funds must be allocated only to enhance eligible specialty crops. This includes billing eligible crops separately and isolating them from non-eligibles in all accounting processes and procedures.

Yes, we did complete the activities mentioned to track these expenses separately, for the activities and duration of this grant.

### **Goals and Outcomes Achieved**

To coincide with the website updates and features described in the Project Approach, there were efforts to increase awareness of these new features among farmers and consumers. Farmers were targeted through bi-monthly email newsletters, at conferences and through personal outreach at weekly farmers markets and other events. There were similar efforts aimed at the public for the consumer features of the Local Food Guide. Farm Fresh promoted the website address on popular bumper stickers, in all Farm Fresh printed materials, through a weekly email newsletter and social media publishing.

The measurable goals and outcomes outlined in the original proposal were all achieved or exceeded:

- **32 specialty crop farmers sign up for new accounts. (7 more than expected)**
- **309 specialty crop farms have updated information. (109 more than expected)**
- **92 specialty crop farms have new photos, Facebook, Twitter on their listing. (42 more than expected)**
- **Goal = 100,000 unique visitors to the site each summer month. Actual web hits : JUNE=124,000, JULY=131,000, AUGUST=115,000, SEPT=127,000, OCT=122,000**
- **140% increase in mobile device usage on the website. (60% less than goal)**

### **Beneficiaries**

This projects' stakeholders include:

- all 600 or so RI food-growing farms, growing specialty crops
- dozens of new farmers looking to let local customers know about their specialty crops
- thousands of Rhode Islanders using a computer or phone to look for a farmers' market, farmstand, pick your own or CSA
- hundreds of wholesale buyers looking to source fruits and vegetables from local farms
- researchers and journalists who cover farm and food topics

### **Lessons Learned**

The Local Food Guide project continues to be a great success for RI specialty crop producers. The website reduced the upfront costs of finding local foods and created countless new relationships between farmers and buyers. Farm Fresh RI plans continued outreach to farmers and buyers to ensure the accuracy of the Local Food Guide database and its usefulness as a resource.

### **Contact Person**

Noah Fulmer, Executive Director, Farm Fresh RI – [noah@farmfreshri.org](mailto:noah@farmfreshri.org) – 401-312-4250

# Farm Fresh Final Report

## THE RHODE ISLAND FARM TO SCHOOL PROJECT

### PROJECT SUMMARY

The Rhode Island Farm to School Project was developed in order to bring fresh local fruits and vegetables to school lunch programs throughout the state. Our purpose is to improve children's nutrition, support local agriculture and farm viability and help preserve open space and the quality of Rhode Island's environment.

The RI Farm School Project addresses pressing issues in RI – farm viability and preservation of open space and the escalating epidemic of obesity. At a time when government farm programs favor large farms, small farms find it difficult to compete. In RI, despite these national trends and unfavorable economic conditions, farming is a growing industry. According to the 2007 Census of Agriculture, the number of farms in the state has grown from 858 in 2002 to 1,219 in 2007, an increase of 42 percent. Most of the increase has been among farms earning less than \$50,000 in gross sales. To continue this upward trend and for existing farms to survive and continue to grow, there is a need for RI farmers to expand new markets for their products.

At the same time, the rising rate of obesity in RI, as nationally, is of increasing concern. In 1985 the obesity rate in RI was less than 10 percent, compared to 24.6 percent in 2009. The RI Department of Health reported that in the 2006-07 school year, nearly one in five (18.8%) RI kindergarteners were obese while 17 percent of seventh graders were obese. High school students fared a little better at 11 percent. Obesity is associated with Type 2 diabetes, hypertension, heart disease and other chronic health problems. Adolescents who are overweight have a 70 percent greater likelihood of becoming overweight or obese adults, with increased health risks and higher health care costs than those at a healthy weight. A 2005 scientific analysis forecast a 2- to 5-year drop in life expectancy unless aggressive action manages to reverse obesity rates. In addition to the obvious loss in quality of life for individuals afflicted with these diseases, the estimated annual medical cost of obesity in RI is a staggering \$305 million.

Importantly, increasing the market for locally grown produce will help decrease the environmental impacts of a larger distribution system. Shorter transportation distances for local products means less fossil fuels are burned and fewer greenhouse gases released. The Leopold Center for Sustainable Agriculture reported in 2001 that a regionally based food system would release five to 10 times less carbon dioxide than a nationally sourced food system.

With the exception of 2011, The Rhode Island Farm to School project has enjoyed support from SCBGP since 2007. The project was founded by Kids First, who received SCBGP grants to provide technical assistance to school food purchasers and farmers in an effort to integrate RI Grown products into school meals. The work also included education programming to teach school communities the benefits of

supporting RI farmers and build demand for local produce in their schools. With the closing of Kids First, the project moved to Farm Fresh RI in 2012, when this 2012 SGBGP grant was awarded. The current work at Farm Fresh compliments and enhances the previous Farm to School project work at Kids First by expanding the definition of “Farm to School” to include pre-schools and colleges and universities. By continuing to develop new demand for RI Grown produce in educational settings, this project “grows” new and future purchasers, expanding the potential market for RI farmers.

## PROJECT APPROACH

As we continue to build on the accomplishments of the successful RI Farm to School project, Farm Fresh RI is working to expand the definition and reach of “Farm to School” to include colleges, universities, private schools and pre-schools. This expansion will increase the demand for locally grown fruits and vegetables by increasing awareness and facilitating purchases of local produce by previously untapped markets. Expanding the market for RI fruits and vegetables will enhance the competitiveness of eligible US specialty crops.

In addition to our established and continuing work to promote RI Grown to public school food service operations and the communities they serve, this project seeks to “grow” new and future purchasers of Rhode Island Grown.

The following activities are performed in order to achieve success:

- Our Farm to School Coordinator was frequently in contact with farmers, food service purchasers and distributors, facilitating farm to school purchasing, assisting food service management companies to make direct connections with area specialty crop growers. For example, Ms. Clark assisted the Providence Public School District’s food service management company to “adopt” a local farm – Pezza Farm. Pezza is growing particular crops dedicated to the Providence School District.
- Attend meetings to network, stay up to date with current trends and practices, and promote the Farm to School project in the community. Ms. Clark is a member of the Regional Steering Committee for the National Farm to School Network and Farm to Institution New England (FINE). Through these two trade associations, Ms. Clark attends webinars, conference calls and national meetings, focusing on best practices for farm to school purchasing. She actively applies these lessons to her work in Rhode Island.
- Promote communication and interaction between farmers and food service purchasers with local food learning journeys to farms and farmers markets. Ms. Clark arranged farm field trips for food service management company purchasers, and arranged for informational interviews between these buyers and area specialty crop farmers. Purchasers also visited the Wintertime Farmers Market in Pawtucket, RI and had a guided tour and information sessions with farmers at the market.
- Arrange purchasing agreements to stimulate farmer use of greenhouses, or early/late varieties of plants to extend the growing season. A challenge in the farm to school program in Rhode Island is the relatively short growing season for specialty crops. Specialty crop farmers have been pushing their boundaries of this growing season through the use of greenhouses and other season extension strategies. Ms. Clark has been facilitating the use of these techniques by growers for the school market. For example,

Pezza Farm, mentioned above as “adopted” by the Providence Public School District, will be utilizing a greenhouse to grow lettuce specifically for Providence.

- providing technical assistance to support purchasing relationships between RI farmers and school food purchasers, including assisting 13 ARAMARK managed districts in sourcing RI Grown apples, summer squash, greens and root vegetables through 2 different distribution channels, facilitating 9 Sodexo districts “Adopt a Farm” initiative with Pezza Farm and participating in 8 Chartwells Harvest Feast celebrations
- Maintain statistical information and database of school food purchases. Ms. Clark maintains this information and database with input from the distributors that sell to the schools’ food service management companies.
- outreach to 5 pre-schools and 7 Headstart programs to offer Farm to Preschool education programs centered around “Veggie Box”
- outreach to 5 pre-schools and 7 Headstart programs to offer technical assistance in sourcing RI Grown produce, including one potential high volume purchaser with 18 facilities and a centralized kitchen
- outreach to 2 college and university food service directors to offer technical assistance in sourcing RI Grown produce
- Produce chef demonstrations to showcase RI specialty crops being served and include taste testing, visits from local farmers, video/slide shows demonstrating how those foods are grown, and cooking classes
- From July – December 2012, The RI Farm to School Project hosted cafeteria events, including taste-testing, visits from local farmers, and cooking demonstrations. These events at area schools reached over 1,300 students.
- developing a foundation for an online mechanism to facilitate Farm to School sales by communicating market demand and farmer capacity in advance of the growing season
- Ms. Clark sends out a monthly Farm to School newsletter to project stakeholders, discussing accomplishments opportunities in the area.
- Implement education programs that integrate farming, local agriculture, nutrition, and local food sustainability into existing classroom curricula. From July – December 2012, The RI Farm to School Project hosted 21 farm to school classroom events, including age-appropriate curricula on farming, nutrition, economics and history. These events at area schools reached over 900 students.
- Arrange farm visits for students, parents, and staff. From July – December 2012, The RI Farm to School Project hosted 3 farm field trips. Farm field trips are costly for the program, but are wonderfully effective ways to connect students to their environment and their food.

Community partners continue to be a great support to the RI Farm to School Project. The RI DEM helps provide points of connection and guidance in working with various governmental agricultural groups and organizations in the state and the region on policy. The RI Dept. of Education is a direct link to resources, statistics and information necessary to communicate with all 36 public school districts. RIDE also assists in our efforts to integrate RI Grown into the USDA Commodity adjunct produce program “DoD Fresh”. The RI Dept. of Health relays critical information regarding state and federal nutrition initiatives that provide opportunities for Farm to School, and the RI Food Policy Council has created a forum in which to gain support and assistance for a project that seeks to expand grower’s capacity and the retail market for specialty crops by lightly processing and freezing produce.

An exciting partnership has developed recently with the URI SNAP Education team. Farm to School Programming and SNAP Education combination programs allow each organization to expand their audience and reach within eligible communities. Since the partnership started, we have combined efforts to present classroom education programs followed directly by cafeteria events that teach students the importance of eating fresh fruits and vegetables, especially ones that are grown locally.

The efforts of the Farm to School coordinator focus completely on specialty crops. The landscape of food sourcing in Rhode Island public schools, with only one school district being self-operated, does not lend itself to sourcing locally for meat or dairy products. All activities described in this report and funded through this program relate to specialty crops.

## GOALS AND OUTCOMES ACHIEVED

**Goal:** Successful transition of RI Farm to School Project from Kids First to Farm Fresh RI

**Performance Measure:** Maintenance and expansion of a successful RI Farm to School Project

**Baseline:** Current number of grower/purchaser connections and administrative tasks (tracking annual purchases, publishing monthly newsletter, facilitating annual meeting) completed. Limited number of Farm to School education programs and school to farm field trips to continue.

**Target:** Current number of grower/purchaser connections and administrative tasks completed/maintained with expansion of programs into pre-schools and college/university settings. Limited number of Farm to School education programs and school to farm field trips to continue.

**Actual Accomplishment:** RI Farm to School Project successfully transitioned and integrated with other Farm Fresh nutrition education programs. Programming and technical assistance expanded to 5 preschool and 5 Headstart locations. Outreach and preliminary discussions to provide TA to both Rhode Island College and Rhode Island School of Design are likely to come to fruition in Spring 2013.

34 classroom education programs directly engaged 812 students while 10 cafeteria programs reached 4,399 students, teachers and aids. Farm field trips allowed 139 elementary school students and 30 preschool students to experience hands-on, interactive learning opportunities at either Pezza Farm or Morris Farm.

**Goal:** There is an increase in the amount and variety of locally grown fruits and vegetables purchased by the pre-schools after the Farm to Pre-School Program begins.

**Performance measure:** The increase in the amount and variety of RI produce purchased by the pre-schools

**Baseline:** Learning Brooke Early Childhood Education Center Purchases from Harvest 2011: \$1,400 in local specialty crops purchased

**Target:** At least 10 different produce items and at least \$2,500 of produce from RI farmers.

**Actual Accomplishment:** Data on harvest 2012 purchases by preschools is still being gathered. As this is the first year in which multiple centers have made purchases, the data gathering process is not established. Estimates for this season's purchases are over \$10,000. This figure was extrapolated from Veggie Box and Market Mobile data available to us as well as from anecdotal information provided by purchasers. At least 10 different RI Grown produce items were purchased by pre-schools including green beans, peas, carrots, cucumbers, peppers, broccoli, cauliflower, berries, melons and apples. Approximately 480 Veggie Boxes went to pre-schools.

The information is almost completely compiled – one district was missing data at last check. The information will be complete and available on the Farm Fresh RI website by the end of May, 2013.

**Goal** Pilot pre-school veggie box participants make regular documented purchases of locally grown fruits and vegetables for their school meal program

**Performance measure:** The number of pre-schools that participate in Veggie Box program

**Baseline:** In 2011, no preschools participated in Veggie Box.

**Target:** 2 preschools participate in Veggie Box program.

**Actual Accomplishment:** 4 preschools participated in the Veggie Box program, including Sweet Peas Village, URI Child Development Center, The Children's Workshop in Lincoln and A Child's University in Lincoln. Learning Brooke did not participate in Veggie Box, but did make regular, documented purchases of locally grown for their meals program. The Children's Workshop production kitchen in Central Falls, which serves 18 centers in RI and MA, did purchase RI grown apples and some produce through their produce distributor, however the purchases were not tracked.

When preschools participate in Veggie Box, they are offered an accompanying Farm to Preschool program where students are able to explore the contents of the box and experience the sight, smell, feel and taste of a variety of RI Grown produce. The program includes an educational story about agriculture, teaching children the importance of the farms in their community. Students are sent home with samples and RI Grown stickers so that care takers are made aware of the programs. These methods seek to build demand for local produce within the school community for school snack and meals program. Technical assistance in sourcing produce for the school is also offered to preschool food service providers.

## BENEFICIARIES

All RI school children benefit from the Farm to School program with increased access to fresh local fruits and vegetables available in the school meals programs. Many students have the opportunity to participate in education programs that increase their understanding of nutrition, the health benefits of fresh local produce and the importance of supporting local farms. Teachers, administrators, food service staff and care-givers participate in these activities as well and also hear the “Buy Local” message through Farm to School publicity in local papers and/or TV news. This heightened awareness for the entire community increases the “visibility” of our local farms and raises the demand for local products. During the SBGCP grant period, we reached over 4,900 students and school community members directly with education programs and tens of thousands more indirectly with local foods eating experiences in their schools.

Farmers directly benefit from the Farm to School program with increased sales to the school market and improved farm viability. The expansion of the Farm to School program to colleges, universities and pre-schools provides great potential for the RI Farm to School Project to impact the competitiveness of specialty crops.

Growth of the program can be seen in the table on page 7 which demonstrates the growth in the amount and variety of local farm products distributed to RI schools from 2006 to 2012.

## LESSONS LEARNED

We learned that Farm Fresh RI is the perfect new home for the RI Farm to School Project, as the program integrates well with Farm Fresh’s other nutrition education initiatives. Resources and audiences have been easily shared to expand the reach of Farm to School beyond the school yard to farmers markets, community centers and other places people gather to eat.

We have learned that while the educational opportunities and potential to positively impact pre-school students eating behaviors is boundless, the opportunity for farmers to find efficiencies in selling to that market is limited. Due to small appetites and the abundance of small centers, the quantities of fresh produce a pre-school is likely to order may not make financial sense given current options for distribution. It makes sense to focus on facilitating local purchasing relationships with centers having multiple locations, such as The Children’s Workshop with 18 locations and a centralized kitchen as well as promote Veggie Box to pre-schools. Other promising opportunities may be found with Headstart programs that contract their food service out to caterers who serve multiple Headstart locations. These are the types of potential purchasers we will target for future offers of technical assistance and programming.

Unexpected challenges in connecting with college and university food purchasers have resulted in slower progress than hoped for in regards to our “Farm to College” goals. After months of seeking to meet with Food and Nutrition Services Directors without success, we have found potential in-roads through Sustainability Department representatives. Regardless of our intervening or interacting with college and university cafeteria staff, it is evident through Farm Fresh Market Mobile purchases and anecdotal stories we hear from colleagues involved in farming and distribution that most Rhode Island higher educational facilities are purchasing local to some degree. We look forward to developing those relationships that will allow us to capture that data and track the growth of this market.

We have learned that while some factors beyond our control may limit the growth of the amounts of product being purchased by schools, that measurement is not necessarily representative of the growth of the program. This past season the Rhode Island tree fruit crop was decimated by a late season frost. Two farmers who have consistently supplied schools with fruit in the past did not have a crop to sell. This negatively impacted the growth of the program if you look strictly at the number of pounds of produce purchased by schools. There have been major mile stones reached in the integration of Farm to School in the school meals program though, as evidenced by the development of relationships centered on local purchasing.

- Due to the lack of apples available through their traditional source (Hill Orchard), ARAMARK approached the DoD Fresh vendor (AT Siravo) and requested they source RI Grown apples through Pippin Orchard. AT Siravo complied and sourced Confreda Farms produce as well, making more RI Grown available to not only ARAMARK managed districts, but a total of 34 school districts in the state. As a result of the success, ARARMARK is considering purchasing RI Grown produce through that distribution channel over the summer months for a processing and freezing pilot.
- Sodexo Providence initiated an “Adopt A Farm” program with Pezza Farm last spring. As they began to plan the types and amounts of produce needed, 8 more Sodexo managed districts joined them in the planning. As a result, Pezza Farm dedicated 15 acres of land to the growing of RI Grown produce or Sodexo school meals. At least 10 different items, approximately 12,800 pounds of Pezza Farm produce, were enjoyed by RI school kids. The initiative was so successful that Sodexo managed colleges and hospitals are planning to join the planning process this season.

## CONTACT PERSON

Kimberly Clark, RI Farm to School Coordinator  
Farm Fresh RI  
1005 Main Street, Suite 1220, Pawtucket, RI 02860  
Phone 401 312-4250 Cell phone 646 541-0952

Email: [kimclark@farmfreshri.org](mailto:kimclark@farmfreshri.org)

Comparison of 2006-2012 Farm to School Purchases - Locally Grown & Produced Food  
Rhode Island School Districts as of 4/1/13

<b>Fruits-Vegetables</b>	<b>2006 Amounts</b>	<b>2007 Amounts</b>	<b>2008 Amounts</b>	<b>2009 Amounts</b>	<b>2010 Amounts</b>	<b>2011 Amounts</b>	<b>2012 Amounts</b>
Apples	544 cases	2,632 cases	2,511 cases	4,810 cases	4,934.5 cases	5,395 cases	3,490 cases
Corn	52 bushels	100 bushels	157 bushels	135 bushels	296 bushel	156 bushels	36 bushels
Tomatoes	117 cases	201 cases	14 cases	124 cases	154.75 cases	65.5 cases	150 cases
Potatoes	1,700 pounds	28,850 pounds	40,285 pounds	30,350 pounds	34,550 pounds	42,130 pounds	44,990 pounds
Butternut	2,160 pounds	406 pounds	1,960 pounds	831 pounds	2,589 pounds	3,680 pounds	1,650 pounds
Broccoli	0	50 pounds	420 pounds	574 pounds	402 pounds	252 pounds	1,242 pounds
Peaches	0	45 bushels	166 cases	401 cases	768.5 cases	257 cases	256 cases
Strawberries	0	260 quarts	255 quarts	866 quarts	444 quarts	0	
Carrots	0	30 pounds	2,000 pounds	2,675 pounds	1,858 pounds	3,072 pounds	3,513 pounds
Cider	0	252 gallons	506 gallons	0	37 gallons	0	1 gallon
Cucumbers	0	1.5 cases	0	60.5 cases	64.25 cases	495 cases	572 cases
Cabbage	0	0	120 pounds	0	0	0	
Cherry Tomato	0	0	44 flats	18 flats	409.5 flats	1,224 flats	209 flats
Green beans	0	0	100 pounds	100 pounds	356 pounds	210 pounds	1,744 pounds
Lettuce	0	0	2 cases	22 cases	896 pounds	1,227 pounds	1,251 pounds
Zucchini	0	0	1,505 pounds	1,140 pounds	2,039 pounds	4,378 pounds	3,010 pounds
Summer Squash	0	0	0	180 pounds	2,689 pounds	2,627 pounds	1,043 pounds
Blueberries	0	0	0	37 cases	0	4 cases	
Cantaloupe	0	0	0	2 bins	3.25 bins	0	
Pears	0	0	0	1 case	1 case	548 cases	378 cases
Peppers	0	0	0	224 cases	267.75 cases	508 cases	368 cases
Plums	0	0	0	15 cases	11 cases	28 cases	
Celery	0	0	0	1 case	0	2 pounds	
Eggplant	0	0	0	144 cases	2 cases	2.5 cases	
Spinach	0	0	0	4 cases	12 pounds	0	
Pumpkin	0	0	0	0	521 pounds	285 pounds	163 pounds

Nectarines	0	0	0	0	420 cases	222 cases	4 cases
Watermelon	0	0	0	0	20 each	0	
Honey	0	0	0	0	146 pounds	177 pounds	2 pounds
Beets	0	0	0	0	1 case	0	
Frozen Strawberries	0	0	0	0	442 pounds	100 pounds	
Pea Pods	0	0	0	0	5 pounds	0	15 pounds
Parsnips	0	0	0	0	0	100 pounds	1,345 pounds
Basil						12 pounds	12.5 pounds
Onions						87 pounds	
Asparagus						152 pounds	50 pounds
Cauliflower						502 pounds	961 pounds
Sweet Potatoes							100 pounds
Turnip							2,275 pounds
Wax Beans							926.5 pounds
Escarole							470 pounds

## **Project Title**

### **RI. DEM GET FRESH BUY LOCAL Campaign Final Report**

#### **Project Summary**

*This program was built on the previous projects and enhanced our commitment to increase demand and consumption of RI Grown Specialty Crops. Our motivation was to enhance the marketing of Fruits and Vegetables in the State for over 180 farmers. This is needed to help slow down the loss of Agricultural Land to development by making farming of Specialty Crops viable in Rhode Island.*

*The Rhode Island Division of Agriculture working with specialty crop growers throughout the state expanded on its "Rhode Island Get Fresh Buy Local" buy local initiative by conducting produce preparation demonstrations featuring local celebrity chefs at all RI farmers market and participating roadside stands. The Division also updates its RI Agricultural Display on an annual basis. The Division also uses SCGF to enhance its marketing program by making point of purchase advertising material available to farmers. The need for this project is to help keep Specialty Crop Farming*

*Viable in Rhode Island. Since Rhode Island has such a short growing season it was critical for us to get Specialty Crop Farmers (Fruit and Vegetable Growers) the logo material.*

## **Project Approach**

By expanding our marketing efforts by purchasing new graphics for our display and doing shows throughout the State we increased demand for RI Grown Specialty Products (fruit and vegetables). We also expanded our farmers' market program by using wireless EBT technology at our farmers markets. At the market we increased sales for Rhode Island Specialty Crop Farmers by the use of these EBT machines

Our partnership with Rhode Island Specialty Crop Growers has served over 400,000 Rhode Island residents by bringing the locally grown fruits and vegetables. Working with over 50 farmers markets we have increased outlets for the sale of locally grown Specialty Crops. Fruit, Vegetables, Nursery Stock and Honey are now in demand more than ever.

We also held cooking demonstrations in partnership with Johnson and Wales University at 7 farmers markets throughout the State. Customers were taught how to prepare fruit and vegetables that were being sold at the farmers market. Over 800 people saw these demonstrations.

We also hired two summer interns to work at the farmers markets to help Specialty Crop Farmers sell their products. The interns job was to help specialty crop farmers display their products. The interns job was to give out information about specialty crops and answer any customers questions. Also the intern would interview specialty crop farmers to see if our efforts increased their sales.

In interviewing farmers we have seen a 5% increase in sales of Specialty Crops over last year. We interviewed 50 Specialty Crop farmers at farmers markets and asked if they have seen any increase in sales due to our marketing efforts. Due to the added demand we now have 3 winter farmers markets.

To ensure Specialty Crop Funds were only used for Specialty Crops the DEM/Division of Agriculture contributed over \$50,000 dollars of State funds to cover non Specialty Crops that have benefited from this program. Over 80% of the Agricultural Crops sold in RI are Specialty Crops.

## **Goals and Outcomes Achieved**

By expanding our marketing efforts by purchasing of display material and doing shows throughout the State we have increase demand for RI Grown Products. Also by expanding our farmers' market program and introducing wireless EBT technology into the markets we have increased sales for Rhode Island Farmers. These sales were documented by bank statements showing sales of fruit and vegetables that were processed through the EBT machines. There was sales of \$11,000 processed on the EBT machine for Specialty Crops. We also measured the increase sales of RI Grown Specialty Crops by speaking and surveying farmers to see if their sales have increased. We know as in the past informing the public about RI Grown Specialty Crops increases demand for such products.

EBT Program was supplemented by 20% of State funds to compensate for the sales of non Specialty Crop items. It has been determined that 20% of products being sold at our farmers markets are not Specialty Crops.

The goals we achieved for the season are:

- Set up and operate EBT systems at 12 farmers markets
  - Re-Certified 40 farms for GAP compliance for sales to school districts
  - Had cooking demonstrations at farmers markets throughout the season at 7 farmers markets over 6000 people learned how to prepare fresh fruits and vegetables. This was a partnership we have with Johnson and Wales University that is very popular.
  - Gave out information to 50,000 citizens promoting RIGrown at shows
  - Point of purchase material is critical to educate the public as to what products are RI Grown Specialty Crops. These point of purchase materials also let the farmer help customers identify which are Rhode Island Grown Specialty Crops. We will measure the outcomes of our actions through the surveying of farmers to see if our efforts have increased demand for their products.
  - Of the 40 Specialty Crop Farmers Surveyed. All responded that our efforts have helped them in some way to stay viable as a Specialty Crop Grower in RI. They all have seen an increase in sales.
  - We held Agriculture Day at the Rhode Island State house May of 2013 and over 38 Specialty Crop Farmers were able to give out information about the crops they grow and where their establishments are located. Over 2,300 people attended the event. There was also a proclamation from the Governor for Agriculture Day in Rhode Island.
- OUR MARKETING EFFORTS HAVE LEAD AGRICULTURE TO BE THE ONLY SEGMENT OF THE RHODE ISLAND ECONOMY THAT IS PROSPERING.

## ***Beneficiaries***

The beneficiaries of the project are all the citizens of Rhode Island and Specialty Crop Farmers. Our efforts have increased the availability of fresh fruits and vegetables for the citizens of Rhode Island.

## ***Lessons Learned***

We have learned that marketing of Fruits and Vegetables and other Specialty Crops is critical to increasing sales and keeping farming viable in Rhode Island

## ***Contact Person***

Peter Susi  
[peter.susi@dem.ri.gov](mailto:peter.susi@dem.ri.gov)  
401-222-2781 ext. 4517