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Increasing Consumption of Specialty Crops by Pregnant, Breastfeeding, and Postpartum Women Through the Connecticut Women, Infant, and Children Farmers' Market Nutrition Program

Connecticut Department of Agriculture

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Project Summary

The Connecticut Department of Agriculture (DoAg) distributed a bilingual (English/Spanish) cookbook called *Celebrating a Healthy Harvest: Recipes and Tips for Fresh Fruits and Vegetables*. This is a cookbook customized for Connecticut but predesigned and approved by the national WIC program and the United States Department of Agriculture (USDA) Food and Nutrition Service. To increase the purchase of specialty crops, DoAg worked with a check printer and the cookbook printer to insert a three-dollar (\$3.00) WIC Cookbook Voucher into the center of the cookbook. This voucher was placed in between the two languages making it easy for recipients to locate and use. These WIC Cookbook Vouchers could be used to purchase fruits and/or vegetables only at authorized redemption locations that were limited to farmers' markets and/or farm stands.

All authorized redemption sites are certified by DoAg to participate in the Farmers' Market Nutrition Program (FMNP) and accept these vouchers. Random inspections to ensure vouchers are used by farmers for only fruits and vegetables are conducted. In 2012 during the program year, no corrective actions were taken against any farmers as all were using the program in the appropriate fashion. Overall the FMNP is a well-established and highly popular program that serves a variety of nutritionally at risk individuals that include WIC clients, low income seniors and low income families with children between the age of five and eighteen. Connecticut boasts some of the highest FMNP redemption rates in the country which make this program a perfect add-on, increasing benefit levels for eligible clients by 20%.

In the winter of 2013, for implementation in 2014, DoAg established a pilot program with the remaining funds from the WIC cookbook voucher program, to offer veterans FMNP vouchers to purchase fruit and vegetables only from authorized FMNP farmers. The Veterans Voucher FMNP Pilot Program added a new group of eligible clients to the highly popular and successful Connecticut FMNP. This program opened the door for veterans (that meet a specific definition, see below) to receive a booklet of Veterans FMNP Vouchers that can be used to purchase fruits and/or vegetables at authorized farmers markets and farm stands. This increased the demand for fruits and vegetables while supporting our brave men and women that have served our nation. The Veterans Voucher FMNP Pilot Project differs from the WIC Cookbook Voucher Program since veterans FMNP vouchers were not be placed in a cookbook. Cookbooks were available for participants, but checks were not included in them.

A baseline goal of 40% redemption rate was DoAg's goal for the Veterans Voucher FMNP Pilot Program.

For the purpose of this program, a veteran is defined as:

All participants must have received an honorable discharge or general under honorable discharge. Veterans with a service connected disability from the Armed Forces of the United States are also eligible. Veterans must have a maximum household income of not more than 185 percent of the annual poverty income guidelines.

While the target audience is veterans, this program still will follow the guidelines, and controls, for the state's FMNP.

This project was not previously funded or built on a previously funded project by the SCBG or SCBG-FB.

Project Approach

A total of 20,000 cookbooks with three-dollar (\$3.00) WIC vouchers, were printed and distributed to eligible WIC clients through their Local Coordination WIC Offices, in conjunction with their WIC FMNP vouchers. These local offices have a vast ranging network in place to reach all eligible clients. During the 2012 farmers market season (June-October), eligible clients were able to use both WIC FMNP vouchers and the WIC Cookbook Vouchers to purchase CT Grown fruits and vegetables.

For the Veterans FMNP Pilot Program, veterans were provided a booklet of seven (7) three-dollar (\$3.00) Veteran Vouchers for a total of twenty-one dollars (\$21.00) for the purchase of Connecticut Grown fruits and/or vegetables at authorized farmers markets or farm stands. DoAg partnered with the Connecticut Office of Veteran Affairs and local agencies that provide assistance to veterans in their service areas to reach eligible veterans. Through these agencies, DoAg distributed vouchers to a total of 1000 eligible Veterans, each receiving a booklet worth twenty-one dollars (\$21.00). These vouchers could only be used to purchase Connecticut Grown fruits and/or vegetables at authorized farmers markets or farm stands throughout Connecticut. A list of all eligible redemption locations was listed in the back of the Veterans FMNP voucher booklet.

Goals and Outcomes Achieved

The objective of the WIC cookbook voucher program was to increase benefit levels to WIC clients and increase fruit and vegetable farmer earnings through the additional vouchers distributed to WIC clients.

The WIC clients who are identified as "nutritionally at risk" benefited with an increased benefit level that enabled them to increase the amount of Connecticut Grown fresh fruits and vegetables purchased at authorized farmers markets.

Connecticut farmers that participate in authorized farmers were reimbursed the face value of the voucher, enhancing their earnings and supporting participation in farmers

markets.

DoAg distributed 20,000 WIC Cookbook Vouchers which had a total value of \$60,000. At the conclusion of the program, there were a total of 7,064 cookbook vouchers redeemed. This equates to a total of \$21,192 of specialty crops purchased by WIC clients with these vouchers. This equates to an overall redemption rate of 35%.

DoAg had established a goal of 40% redemption rate for the Veterans FMNP Vouchers FMNP Pilot Program. Veteran vouchers redemption rate of 63% was accomplished, exceeding our original goal. \$12,840 worth of Veteran Farmers Market Vouchers were redeemed by 611 nutritionally at risk veterans.

Beneficiaries

7,064 WIC moms and their families;

611 Nutritionally at risk veterans that meet the specified definition listed above and their families;

238 Authorized fruit and vegetable farmers that participate in authorized farmers markets.

Lessons Learned

The overall increase in specialty crop purchases by WIC clients was positive outcome of this program. This equaled \$21,192 and an increase of 5%.

The overall redemption rate of the WIC Cookbook Vouchers in circulation fell short of expected goals. DoAg established a goal of 65% overall redemption rate of WIC cookbook vouchers. The redemption rate was 35% but 100% of the 20,000 cookbooks there distributed to WIC clients to be used as a recipe guide for Connecticut Grown fruits and vegetables.

DoAg is pleased with the success of the Veterans Vouchers FMNP Pilot Program and will be looking into other sources of funding to continue the program in 2015.

Additional Information

The recipe book is available in hard copy upon request.

Supporting Specialty Crop Farmers through Nutrition Incentives

Wholesome Wave

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Previously submitted and approved in January 2014 through the Second Annual Report

Project Summary

Wholesome Wave is a national leader in the movement to build vibrant, equitable, local healthy food systems. Our innovative programs empower families in underserved communities to make healthy food choices and support local farmers by increasing access to affordable, locally grown food in ways that generate significant economic impact.

During this project, we implemented our core program, the **Double Value Coupon Program** (DVCP), in selected areas to increase the economic competitiveness solely of specialty crops. The program provided monetary incentives for federal nutrition assistance recipients to purchase locally grown fruits and vegetables—specialty crops by definition-- at farmer's markets.

Although federal nutrition benefits can be redeemed at many CT farmers' markets, many recipients choose to forego fresh food in order to stretch their limited food budgets, purchasing low cost fast foods and processed meals. Such purchases rarely benefit specialty crop growers selling fresh, CT-grown produce at farmers markets. Moreover, consumption of these processed foods can result in serious diet-related health problems, including obesity, diabetes, and heart disease.

The high cost of fresh, local produce, which can create a barrier to purchasing among individuals struggling with poverty, is particularly acute in Connecticut. In a national survey, the Hartford-New Haven metropolitan area had the second-highest fruit and vegetable prices in the country.¹ Nutrition incentives, which somewhat offset this high expense, can be an important component in efforts to increase revenue opportunities for specialty crop growers marketing directly to lower-income neighborhoods.

Through the DVCP, recipients of federal nutrition assistance benefits, including Women, Infants and Children Supplemental Food Program (WIC) Farmers Market Nutrition Program (FMNP) checks, and Senior FMNP checks, were able to double the value of their benefits redeemed at farm-to-market retail venues such as farmers markets. In this way, an individual spending \$10 at a participating market could buy \$20 worth of fruits and vegetables, thus doubling revenues for specialty crop farmers.

DVCP initiatives are operated at local markets by community-embedded organizations with a social-empowerment mission and a focus on supporting local agriculture. Wholesome Wave's role is to provide the technical support necessary to get them

¹ Leibtag, Ephraim, and Aylin Kumcu. The WIC Fruit and Vegetable Cash Voucher: Does Regional Price Variation Affect Buying Power? EIB-75. U.S. Dept. of Agriculture, Econ. Res. Serv. May 2011.

started and develop their programmatic and financial capacity. In Connecticut, the DVCP is implemented in cooperation with several partner organizations. This project allowed us to expand the program to more sites and help partners implement outreach campaigns in order to attract additional customers and increase specialty crop sales.

Project Approach

From January to March 2012, we provided technical assistance to existing partners planning to implement ongoing programs. We were focused on the development of outreach plans to be implemented throughout the farmers market season.

New program partnerships were finalized in March following a comprehensive vetting process. In April and May, selected partners received the training and technical assistance they needed to implement the program, through a partner toolkit and webinars on data collection and reporting.

DVCP initiatives were launched at the beginning of the market season in spring of 2012, in partnership with community-based organizations in eight towns, including:

- Billings Forge Community Works (Hartford)
- Brass City Harvest (Waterbury)
- CitySeed (New Haven)
- Town of Putnam/ Day Kimball Hospital (Putnam)
- Downtown Special Services District (Bridgeport)
- Hartford Food System (Hartford)
- North End Action Team (Middletown)
- Wholesome Wave Bridgeport (Bridgeport)

Each partner organization collected data throughout the season, supported by Wholesome Wave's technical assistance and data collection and reporting tools, including the online data portal. DVCP implementation lasted until the farmers market season ended in late Fall. (Specific end dates were different at each market.) As the season ended, we completed data collection from each of the sites above and began analyzing it, along with our national data. We completed analysis in spring 2013, supported by additional funds since the program period for this SCBG grant had ended on December 31, 2012.

This analysis demonstrated that the program generated a total of \$303,961 in CT specialty crop sales, easily surpassing our goal of \$80,000 in specialty crop sales. Sales were associated with the following sources:

- WIC Farmers Market Nutrition Program (FMNP) sales: \$115,971
- Senior FMNP sales: \$77,502
- DVCP benefits distributed through these sales: \$110,488

Approximately 102 farms at 17 market sites benefited from the program, again surpassing our goal of 62 farms and 14 market sites.

Goals and Outcomes Achieved

Throughout the project term, we worked with our partner organizations to track the amount of money in WIC and Senior FMNP benefits, and DVCP incentives received by specialty crop vendors at participating farmers markets. Our goal was to increase revenues by at least \$75,000 at 14 farmers market sites by matching \$37,500 in federal benefit spending with \$37,500 in DVCP incentives.

Our baseline data showed that in 2010, DVCP programs implemented with our partner organizations in Hartford, New Britain, and Bridgeport increased vendors' revenue by more than \$49,000 in federal benefit sales working at 6 markets. In 2012, the program continued to directly increase revenue for local specialty crop farmers: our analysis demonstrated that the entire program generated a total of \$303,961 in CT specialty crop sales, easily surpassing our goal and enhancing the competitiveness solely of specialty crops. (Note that SCBG funds were supplemented by private sources to achieve these results.)

Another goal of the program was to increase the competitiveness of solely specialty crop farmers through improved outreach and expanded program participation by WIC and Senior FMNP recipients. We set out to benefit 62 specialty crop farmers during the 2012 season, working off a baseline of 39 specialty crop farmers benefiting from DVCP during the 2010 market season. (Due to the grant proposal timeline, we did not yet have 2011 results when we set these baselines and targets.) Activities supporting this goal included bolstering outreach strategies implemented by our partner organizations in their target communities. The number of vendors participating and receiving revenue from federal benefits and DVCP incentives was also tracked through Wholesome Wave's online data collection tool, which showed that approximately 102 farms at 17 market sites benefited from the program, surpassing our goal of 62 farms and 14 market sites.

Our success demonstrates that the Double Value Coupon Program was becoming an important source of revenue for Connecticut's specialty crop farmers, as well as a vital tool for underserved community residents to access affordable, healthful, Connecticut grown food fruits and vegetables.

It is difficult to get an accurate baseline of specialty crop sales from the specific farmers participating in the program in 2012. We added several new partners and sites to the program that year; as a result, we did not have baselines for the new specialty crop producers. However, since customers spending federal benefits at the market indicated on our consumer surveys that they would not have come to the market without the incentive program, we can assume that the \$303,961 revenue did represent an increase in sales.

Moreover, farmers and implementing partners have reported that the program represents an increase in sales, as indicated by their responses to our surveys as well as their continued participation in the program. All partners are responsible for at least

some of the cost of implementing the program; therefore, if they thought there was no benefit, they would not continue to participate.

Beneficiaries

Connecticut's farmers markets provide excellent opportunities for specialty crop farmers to increase direct sales. However, the economic viability of our local farms is strengthened when direct sales are expanded beyond their middle class and affluent customer base, into low-income communities. Re-directing nutrition assistance dollars to benefit small and midsized specialty crop farms can result in significant economic impact for these farmers. Additionally, purchasing power gained by consumers shopping with federal benefits allows them to make healthier food choices, reducing their risk of diet-related diseases such as diabetes, obesity and heart disease.

During this project term, the DVCP provided a tool for shifting some of the federal benefit dollars flowing into Connecticut toward purchases of state-grown specialty crops, providing significant benefits to specialty crop growers and to underinvested communities. We were able to expand DVCP initiatives in cities with established collaborative partnerships, including Bridgeport, Hartford, New Haven, Middletown, and New Britain, while also launching a new program in Waterbury. All these cities are among the state's most food insecure, falling into the top 15% of least food secure cities.²

Wholesome Wave also gauged the program's impact through consumer surveys conducted at the markets. According to this data, 80 percent of survey respondents in 2012 said that DVCP coupons were very important in getting them to spend their federal benefits at farmers' markets.

We did inquire about the increase in consumption of fruits and vegetables in the survey. In response to the question: "As a result of shopping at the farmers market this season, the amount and variety (or different kinds) of fresh fruits and vegetables I have eaten has. . ."

59% responded "increased greatly"

33% responded "increased some"

Lessoned Learned

There were no delays associated with project implementation; all of our goals and outcome measures were achieved.

DVCP implementation in Connecticut continued to demonstrate that there is considerable demand for fresh, healthy, locally produced fruits and vegetables in the state's low-income communities. While sales of fruits and vegetables are typically low in many of these communities, our data shows that this is more due to a lack of affordable

² Food Security Report: CT Food Policy Council, University of Connecticut, and Hartford Food System. Community Food Security in CT: An Evaluation and Ranking of 169 Towns. September, 2005.

access to healthy food than a lack of desire to buy it. The DVCP provides a powerful tool for transforming this desire into changed purchasing habits, and for ensuring that this changed purchasing benefits Connecticut's specialty crop farmers rather than large, food companies located outside the state.

Collaboration with a network of community based implementing partners was also key to our success on the ground. We worked with these partners to adapt the program and design outreach strategies tailored to their specific communities, increasing WIC and Senior FMNP participation and facilitating increased revenues for specialty crop farmers.

Additional Information

There is no additional information.

Assessing Consumer Attitudes towards Connecticut-Grown Plants,
Connecticut Nursery & Landscape Association
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Project Summary

The project was designed to discover the likes and dislikes of consumers about the plants grown by Connecticut nurseries and greenhouses. Using this data, the project educated growers on how they can better produce plants that people want to buy. This is a critical issue since growers can spend years developing a plant, and expend significant time and money in the process, without knowing whether the investment will pay off through consumer sales. If growers want to remain viable in a very competitive market, they need to know what the consumer is willing to buy in the way of plants.

Our project sought answers to the following questions:

1. Why Connecticut consumers invest in gardening and improving the landscape around their homes. What would convince them to do more, to buy more plants?
2. What characteristics of our plants do consumers look for when buying a plant, such as color, longevity, care-and-handling, price points, etc.
3. Consumer tastes for new plants. What would push them to take the chance and buy a plant they know little about.
4. Whether the *Connecticut-Grown* logo on a plant would increase the likelihood of a customer buying that plant, if the price were more, etc.
5. Consumer attitudes toward buying plants in independent versus mass market retail outlets in our state. Our growers sell to both in large amounts.
6. Effects of plant packaging at the point of sale; the plant container, displays created by the nursery or greenhouse grower, informational tagging, etc.
7. The possibility of consumers buying plants before the usual Spring season and way after, to extend the growers inventory and sales, thereby creating more jobs and keeping more staff on year-round payrolls.
8. Consumer commitment to do-it-yourself gardening versus paying landscapers.
9. Generational attitudes toward *Connecticut-grown* plants. We would like to get the input of younger generations—our future customer base—in addition to their older peers.

Project Approach

CNLA retained the services of Sebena Qualitative Research Services (Westport, Conn.) to provide marketing research services for the project. They held four focus groups with consumers in Norwalk, Danbury, New Haven and Hartford. The interview techniques gave CLNA valuable insights into the subject of the project: what kind of plants do consumers want to buy and use.

The findings were presented by Sabena to over 550 attendees of the 2012 CNLA

Winter Symposium in Manchester. In addition, a nationally-known consultant (Robert Hendrickson) presented a program on how growers could translate the consumer opinions into products that they would want to purchase. A DVD of the focus group conclusions was produced and sent to growers throughout the state. Other major presentations of the findings were made to 375 attendees at the July 2012 summer Field Day in Hamden, at an annual meeting held at Imperial nurseries in Granby, Conn., with 100 attendees and the 2014 CLNA Winter Symposium, attended by 500 individuals. The likes/dislikes of consumers on the issue of plants was also addressed in several articles in the CNLA trade magazine in 2012 and 2013.

A thorough summary of the results of the various focus groups was presented to CNLA at the 2012 Winter Symposium by Sabena Associates. The findings were presented by Sabena to over 550 attendees of the 2012 CNLA Winter Symposium in Manchester. In addition, a nationally-known consultant, Robert Hendrickson, presented a program on how growers could translate the consumer opinions into products that they would want to purchase.

A DVD of the focus group conclusions was produced and sent to growers throughout the state. Other major presentations of the findings were made to 375 attendees at the July 2012 summer Field Day in Hamden. A copy of the two PowerPoints that were presented at each event referenced can be found in Appendix B.

Key suggestions of these focus group participants to the retail entities include:

- Let people know why you can and should plant in the Fall
- Show Fall inventory in an eye-catching out front display
- Use outdoor signage to convey plant selection and knowledge
- Do more effective marketing so we don't go to big box stores
- Be more welcoming; offer expert help without hounding
- Advertise more so people know where CT-Grown nurseries are
- Tell us why and how locally grown is better, healthier, resistant
- Provide interactive lessons for people and kids to get involved
- Educational benefits during off season would promote loyalty
- Say we're going to come work with you if you buy our product
- Promote the facts and the benefits of professional certification

Specific suggestions were made by focus group participants that can be considered as suggestions to "sell more" by local garden centers and other retailers:

- Institute "loyalty" reward programs
- Put coupons in Sunday newspapers
- Advertise on radio spots
- Make it easier to know when you have promotions
- Use Groupon and other Internet promotions
- Do buy-one-get-one-free events
- Find ways to keep the costs lower
- Advertise that your prices are comparable to big box stores

Sabena argued that local garden centers have intense competition from the “big box” stores. Many consumers felt the product from these bigger stores was not as good and that service and knowledgeable staff was chancy. These can be opportunities local garden centers can capitalize on. They can promote their strengths (good local products with experts on staff to optimize the customer’s success in planting).

As mentioned one of the Sabena presentations was given at the 2012 Winter Symposium and set the tone for the event. Attendees (550 attendees) left feeling they had better knowledge of what consumers were looking for and that they had new tools for marketing strategically. Much of the theme for the Winter Symposium was to arm growers with ideas to be more profitable.

Goals and Outcomes Achieved

The project had distinct expected measureable outcomes. We address each EMO here and outline the progress is meeting the objective.

- Engage samples of consumers and query them on a multitude of issues in focus groups. As outlined above, this was accomplished.
- Analyze the results of the focus groups and disseminate the information to growers and retailers. Again, this was accomplished as the prior section discussed. Disseminating the findings and information to growers and retailers at industry trade shows and meetings, news articles in trade journals and through other communications such as CNLA’s weekly fax update, has been an ongoing activity of CNLA.
- A third EMO was to increase sales of plants at all levels in the industry, but particularly for the wholesale growers who produce them. The target was established as a 5-7 percent sales increase of Connecticut-grown plants in the 24-month period that follows the educational component of the project.
- The EMO on increased sales relies on our survey of growers, retailers and landscapers that was conducted on a rolling basis this past year. The survey shows the entities are reporting sales increases of between 1.7 percent and 3.4 percent. We believe this can in part be traced to more responsiveness on the part of sellers as to what kind of plants consumers really want to purchase and utilize. Project Director Robert Heffernan stated to USDA in a December 2012 update of this project that: “Our growers, retailers and landscapers have been reporting sales increases between 1.7 percent and 3.4 percent in calendar year 2012—some of which may be due to their response to the study and some to the warming economy.” We asked Mr. Heffernan several weeks ago for any documentation as to the specifics of this survey or how the sales increase was determined. In drafting the Final Report, the Kowalski Group (CNLA’s Interim Executive Director) relied on direction given by the CNLA officers who referenced the Sabena presentations and the number of attendees as the criteria for this data.

- Also, Dr. Richard Benfield, professor at Central Connecticut State University outlined the results of a survey of nursery customers taken in 2013 by his students during a presentation at CNLA's Winter Symposium in January 2014 in Manchester. Benfield's survey was a follow-up to the marketing efforts contained in the project. In general, Benfield's survey showed high satisfaction levels by consumers of service and products at nurseries. To recap, Dr. Benfield sent 12 teams of students into a variety of nurseries and garden centers to survey customers about why they were shopping there. Fully 21 percent of respondents stated they came to shop at these facilities because they liked the range of plants. Another 21 percent said they visited due to leisure/educational/ambiance reasons—meaning they were not motivated necessarily to purchase products at that time. 17 percent were lured because of special prices. Dr. Benfield concluded:
 - Visitors are coming for a variety of reasons
 - Ambiance is lacking
 - Nurseries MAY be the outlet for the new gardener to get what they wish to know.
 - Demographic of visitors suggests that (No proof)
 - Satisfaction is high, but not for the reasons we think (More/better service)
 - Come for a variety of reasons and offerings

These findings were presented at the recently concluded 2014 Winter Symposium and Expo, held at the Manchester Community College last month. The results verify the need to have a wide range of products at a reasonable price in an attractive facility—a message that was given to the attendees at the symposium.

Beneficiaries

Consumers benefit from the project in that the market will provide them with more types of plants that they truly want. This can expand the market. Meanwhile, growers and retailers benefit as their sales and margin increase, securing their future place in Connecticut's agricultural economy. The industry has spent far too much time perfecting the art and science of growing plants, without regard to what consumers really want in those plants. The consumers, after all, drive demand for our plants. Because the growing of ornamental plants in Connecticut occurs at many levels—nursery, garden center, and landscaper—the information gleaned from this project can encourage incremental new sales at all of these. The project has sought to generate new consumer demand for all our plants produced year-round, and potentially point to new crops that would extend the ornamental plant grower's season.

The findings of the marketing effort and focus group were presented on multiple times to attendees of CNLA events. We believe at one time or the other, we provided the findings to every grower and nursery retailer in the state. By marketing more strategically and promoting themes that resonate with residents, such as the products are grown locally and sold by expert staff who really care about the customer's success, we believe the

facility's customer base and future is better secured.

If garden centers do a better job in making products available that consumers want, at a price they want with the knowledge that staff will help them through the process, then their planting experience could be more meaningful and successful. Consumers who patronized local garden centers told CNLA that they get emotional satisfaction from planting and growing plants and flowers and that it improves the appearance of their homes and it increases the homes value. This project was designed to find out such desires and to give local garden centers a toolkit of strategies that help make this customer satisfaction a reality. They just might "buy more" in the future.

Lessons Learned

We found a great deal of interest in the part of growers and retailers in this project. As noted, we marketed the survey results to the industry in a number of ways. Every tactic was met with good feedback from the industry.

We believe the industry sector should routinely look at updating consumers' wants and desires as far as the types of plants they wish to grow.

Many sellers, however, agreed with the underlying principle that consumers will be more likely to undertake planting and utilize plants if the market provides them with what they want and desire. This calls for a sustained and significant outreach and marketing effort to growers and retailers as well as consumers.

Additional Information

The following link is to an article in the 2011/2012 edition of Connecticut Nursery and Landscape Magazine that discusses this project in detail.

<http://www.flowersplantsinct.com/flipbook/CT-Nursery5-2011-12/index.html>

Increasing Sales of Specialty Crops and Value-Added Products through Expanded Agritourism Training and Marketing Support

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Project Summary

Specialty crop production on Connecticut farms now affords farmers the opportunity to run their farms as important agricultural destinations for the public through agritourism. As in much of New England, farms, orchards, vineyards and nurseries across Connecticut are developing new recreation, entertainment, hospitality and educational activities that invite the public to enjoy a much broader range of experience. The 2007 Census on Agriculture conducted by the National Agriculture Statistics Service shows that income from agritourism on one hundred and one (101) Connecticut farms in 2007 was \$8,582,000 – up from \$335,000 on 30 (thirty) farms in 2002.

From bed and breakfasts and farm stays, educational tours and hands-on learning programs, corn mazes and hayrides, weddings and harvest dinners with locally produced wines and foods, agritourism is a rapidly growing segment of Connecticut's economically important tourism sector.

Agriculture's profile in state and in the region has risen while agritourism and nature-based tourism continue to be among the fastest growing sectors of tourism nationwide. The local food and local farm scene touches every base and current tourism preferences are often for the "authentic" experience that farms can provide. The history of the region plays into and off the farm setting.

As evidence of this trend, increasing service opportunities now await specialty crop farmers engaged or wishing to be engaged in agritourism. The small business community is setting out resources and services available to assist farmers to plan and budget for agritourism activities. In-region marketing support is growing and includes the CT Department of Agriculture (CT Grown), VisitNewEngland.com (Google's #1 website for NE attractions), state tourism agencies, convention and visitors bureaus, Discover New England, and more.

As the result, many specialty crop farm operators are seeking additional skills and learning opportunities to take full advantage of the trends in agritourism and direct marketing. They want to learn more about what visitors want in their on the farm experiences that will encourage the sale of specialty crops and a host of items made from them.

As it is then, farmers must now adapt their businesses and locations to provide the kinds of activities and amenities visitors have come to expect – the kind that will not only draw the public to the farm, but keep them coming back and increase specialty crop sales.

In its own research and with more than a decade's experience, RICAPE has learned that tourism professionals are seeking even more farm destinations in the region that can be included in tour packages, itineraries and promotional programs. And the public is looking for more seasonal adventures for themselves and their families. To answer that charge, the RI Center for Agriculture Promotion & Education (RICAPE) launched "RI FarmWays" in 2006 to create a website for visitors specifically seeking agritourism opportunities, and a hub for food, fiber and greenery farmers to find the tools they would need to grow and expand their agritourism activities.

In 2009, the initiative was re-launched as "New England FarmWays (NEFW)," to provide farmers in CT and MA (southern New England) the same services including: training programs, marketing support, farm site-assessments, mentoring and other technical support services – those specifically requested by farmers and those offered by RICAPE through its NEFW initiative.

Since then New England FarmWays ran a website www.NEFarmWays.orgm and published an in-season weekly newsletter – The Fence Post – to provide agritourism information for the public, a directory of destination farms and a calendar of weekly events. It also served as a resource hub for farmers seeking information and training, as well as marketing and technical support services. CT more specialty crop farmers became members of the NEFW program to received a wider array of services and support.

In 2008 RICAPE- representing RI, MA and CT, participated with the other New England states and Maryland and West Virginia to conduct a two-year multi-state agritourism development project funded by SARE. The RI, CT and MA agenda included a full-day agritourism workshop held at the 2009 Harvest New England Ag Marketing Conference in Sturbridge, MA and three additional seventy-five minute workshops. RICAPE also conducted an agritourism session at the 2011 HNE Conference. In the fall of 2010 RICAPE conducted a survey seeking to identify the agritourism training needs of specialty crop farmers to which more than 200 CT farmers responded.

And in January of 2011, RICAPE conducted an end of year survey (2010) to ascertain the scope and success of agritourism activities during 2010 from many of these same – and other - farmers. In March of 2010, RICAPE conducted a full-day agritourism workshop at Gouveia Vineyards in Wallingford and answered requests for on-site assessments from CT farmers. On going, RICAPE provided mentoring to numerous farms not formally aligned with any service or program.

Through this Specialty Crop Block grant, RICAPE sought to bring these services and activities specifically to more Connecticut specialty crop farmers and, by extension, to broaden the appeal of agritourism to visitors in and around Connecticut and southern New England.

While this project is built in part upon RICAPE's previous activities as defined above,

more significant is that it took place simultaneous to the production of a six-part video agritourism training series called “The Destination Farm in Transition” funded by a USDA grant. A copy of the series was purchased by the CT Dept. of Agriculture Marketing Division at the end of 2013.

This project was not previously funded or built on a previously funded project by the SCBG or SCBG-FB.

Project Approach

RICAPE distributed a survey (via Survey Monkey) of CT farmer’s experiences from April-Dec. 31, 2012 with specialty crops and their impact on agritourism activities and revenues to ascertain the needs for additional learning and/or request for site assessments. While the survey covered the specialty crop farm community a very small sampling (less than 20 responses) was returned.

On February 27, 2013 RICAPE conducted a workshop at the Harvest New England Ag Marketing Conference in Sturbridge, MA for 50 specialty crop farmers from Connecticut. Entitled “Assessing the Destination Farm Experience. “ This workshop was part of the training initiative for this project. At that workshop attendees were shown four segments of a six-part agritourism training series called “The Destination Farm in Transition” that RICAPE was producing through other grants. The series provided a broad presentation of and comprehensive skills development exercise for both large and small specialty crop farm operators engaged at various stages of launching and developing alternative enterprises, expanding marketing and promotional efforts, providing visitor services, activities and amenities on the farm, and addressing critical town/farm zoning conflicts.

On March 25th 2013 at the Northeast Utilities Tech Center in Berlin CT. RICAPE conducted a workshop “The Specialty Crop – Agritourism Connection” for CT farm operators. Three panels and special information components were included with a registered of fifty-five.

Three panels were assembled:

1. Specialty Crops + Agritourism = Profits
2. The Town and Farm Connection: Old Zoning for the New Agriculture
3. Educational Programs on the Farm – What Works and Why

Starting on April 15, 2013, and in concert with the CT Department of Agriculture Division of Marketing, RICAPE began marketing the availability of free site assessments for Connecticut specialty crop farm operators. Two farms were to be randomly selected to reflect different farm types, locations and current status/need. The site assessments would be conducted between April 15th and the end of the project,

Site Assessments

The assessments included a pre-assessment questionnaire filled out by the farm operator, one or more visits to the farms to visually assess the farm operation, then a

final written assessment for the farmer's use. As of September 29th, 2014 RICAPE completed five site assessments with three farm operators interested but dropping out.

Successfully completed assessments were conducted at:

Strong Family Farm, Vernon, CT

Quote: "Strong Family Farm really didn't know what to expect for the specialty crop grant site assessment offered by RICAPE and Stu Nunnery. We thought that maybe he'd just suggest to us what crop would be best grown on our small acreage. Stu blew our minds away with professional guidance and suggestions on every aspect of developing and sustaining the farm - from soup to nuts! Our Steering Committee looks forward to meeting with him soon to continue brainstorming and planning on how to secure the farm for future generations!"

Paletsky/South Farms, Morris, CT

Quote: "Our family's 4th generation retired dairy farm has remained mostly dormant since the late 1970's when my grandfather decided to close his dairy business as a wave of large scale dairy operations entered the market. Modernizing his farm to compete no longer made sense economically. Since then buildings on the farm were stabilized but not improved and the rolling pastures and fields were maintained through limited hay production. Now an 150-acre obsolete dairy farm, a liability with an unclear future, may have a new vibrant life ahead of it. With the support of the Connecticut Department of Agriculture and funding from the Specialty Crop Block Grant program and Jaime Smith, she and Stu Nunnery from the Rhode Island Center for Agriculture Promotion and Education were able to assess our farm's current resources and helped us align them to new types of farming revenue channels. The team's actionable recommendations are a necessary first step for our new farming business plan, and enables our family to intelligently invest back into the farm's infrastructure."

Only specialty crop farms and farms selling specialty crops in a variety of forms, as commodities or as value-added goods and products were eligible to receive these benefits.

Grant funds were used to assess farm and farmer practices and then to make recommendations relative to producing, pricing (at retail), marketing, merchandising (how, where and what ways are specialty crops prepared, packaged and presented/sold to the public), fiscal management (cash and credit card handling protocols), crowd control (efficient flow of people and dollars), and the hiring and training of labor and staff to enhance the competitiveness of specialty crops and products. Each of these functions make specialty crops more competitive.

Our assessment involves several steps:

1. Initial phone or email conversation
2. Written preliminary assessment filled out by the farmer

3. Site visit to discuss the questionnaire responses and get a firsthand look at the operation and the people involved.
4. A written final assessment is produced with recommendations
5. We also offer to be available for further assistance via phone or email until the end of the current year. In some cases we will (and have) conduct additional site visit at the farmer's request.

Specialty crop farmers employ a variety of methods, technologies and strategies that they hope will enhance the competitiveness of their specialty crops. Our job has been to assist them to assess those and recommend appropriate changes and adjustments and where necessary steer them to additional people and resources.

What we do is framed by agritourism because it is agritourism that brings visitors to the farm. In fact in our experience is that people come to the farm to not only purchase specialty crop related items, but to participate in a host of activities (alternative enterprises like u-pick, food related events, tours, fairs, events and festivals, etc.) that involve specialty crops from the field to the point of purchase/consumption.

Important to agritourism's role in the specialty crop enhancement connection is that long before purchasing specialty crops and products, visitors to the farm have "expectations" about their visit and on the farm experience. The farmer therefore must be able not only to put out his or her specialty crops for sale, but "massage" that sale by providing a host of amenities and activities and experiences that will eventually lead to that sale of specialty crops and products.

The more efficient and successful the farmer can be at managing the total sum of visitor expectations (via customer service) the more competitive and well received will be his or her specialty crops and products.

With regard to conducting activities to allow us to meet our expected measureable outcomes, the first step has been to identify farms that seek site assessment and to meet their expectations and needs via those assessments. Part of our initial assessment is to try and ascertain how successful farm operators have been in increasing sales (from specialty crops, ancillaries and related activities) from the previous year. It should be noted that depending on farmer's own evaluation mechanisms, those numbers can be very speculative or are a part of the overall financial assessment of the year without enough separation to ascertain one crop or activity from the next. We encourage good bookkeeping practices to help them and us in this analysis.

Significant contributions and roles of project partners in the project

RICAPE and the CT Department of Agriculture Marketing Division have worked together successfully to provide the necessary setting and support for this project to succeed. In concert with RICAPE's ongoing efforts, CTDA has provided marketing and promotional support to advertise and plan the training programs and site assessments.

Goals and Outcomes Achieved

Goal I: *Enhance farmer skills in a variety of agritourism practices: general business, product and enterprise development, marketing and customer development.*

Performance Measure: *105 Connecticut specialty crop farmers participated in two agritourism training programs in 2013. 20 Specialty crop farmers participated in a survey of their agritourism activities.*

Baseline: Between 2009-2010, 125 CT farmers participated in RICAPE training programs - 2010 Gouveia training (80 farmers), 2009 HNE agritourism trainings (45+ farmers).

Target: 25 specialty crop farmers will adopt new agritourism practices learned from the training programs to assist their marketing efforts.

Comparisons: While only 5 farmers participated in the farm site assessment exercise, another 20-25 farmers who attend the trainings and/or benefitted from and/or received the NE FarmWays marketing e-newsletter adopted new agritourism practices.

Goal II: *Increase traffic to Connecticut specialty crop farms.*

Performance Measure: *Farmers to count farm visitors in 2013 as comparison to previous year.*

Baseline: *2012 Survey indicated "increased" traffic to Connecticut farms over 2011. New 2014 survey was not conducted.*

Target: *Connecticut specialty crop farmers will have experienced a 10% increase in visitor traffic in 2011 over 2010.*

Target: *We anticipate an increase of 7.5% in specialty crop sales for 2012 for those farmers engaged in the services provided by RICAPE through the specialty crop block grant.*

Comparison: Surveys to date were inconclusive.

Beneficiaries

Specialty crop farmers in Connecticut have benefited from more than three years of RICAPE/NE FarmWays marketing promotions and public relations in addition to the trainings, site assessments and video programs.

This project provided unique training and learning opportunities that enhanced the skills, practices and performance of specialty crop farmers relative to their agritourism activities. This project provided encouragement and guidance to develop efficiencies and enhance their presentations as visitor destinations.

We believe the activities provided by this project directly benefited the sale of specialty crops and value-added products.

Lessons Learned

1. Agritourism in Connecticut and the New England region has taken root as a legitimate driver for increased sales and profits derived from specialty crops.
2. Farm site assessments have proven to be a successful exercise for specialty crop farmers engaged in agritourism as they assist farmers to identify critical issues and avenues for addressing them
3. Many farmers believe a site assessment will just encourage more costs to their ventures in order to succeed they can afford. As the result they are reluctant to even go through the process.
4. Not all farmers seek to be assessed or to take actions after an assessment is complete.
5. The current impact of agritourism's activity on specialty crops sales needs to be better understood and made more quantifiable. Survey and the like are insufficient for the job.
6. In many instances, it is the farmers own beliefs that are the most significant elements of a site assessment and impact the farmer's willingness to make changes. In one instance assisting the farmer to understand her role as owner/operator was dependent on helping her to see her artistic self first and to view her farm operation as her work of art. The change in her perspective helped with not only understanding what she should do, but who else she should employ to do things she did not want to do or were not in her skill set.

Another farmer was trying to run her farm as a non-profit and had difficulty seeing her non-profit as a business first. She successfully adopted changes that fit a business model to make the farm more efficient and "profitable."

7. Training programs and workshops on a variety of topics conducted by state offices and universities are now so numerous and frequent it becomes difficult for independent organizations like RICAPE to plan and schedule events that will be appropriately attended or provide the kind of impact hoped for.
8. Our activities must by their nature and design involve interactions with Connecticut specialty crop farmers. As such, we conducted workshops and site assessments at the convenience of the specialty crop farmers which were at a variety of dates and times between January and April and after Labor Day 2013.

Additional Information

Materials for this section can be found:

<http://www.ct.gov/doag/cwp/view.asp?a=3243&Q=558584>

Seasonal Marketing of Specialty Crops with buyCTgrown.com

CitySeed, Inc.

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Project Summary

Recent studies indicate that consumers turning to the Internet to find local businesses is on the rise. A whopping 80% of consumers first utilize the internet before any other tool including a conventional phone book to search for a product or local business.

Despite this shift in consumer behavior we found that a large portion of Connecticut producers of specialty crops lacked a strong online presence crucial to reaching a large portion of their clientele. With every season, producers without this presence were reaching less and less of their potential market.

Our project *Seasonal Marketing of Specialty Crops with buyCTgrown* sought to address this pressing issue through two channels of activity. One channel worked to boost consumer excitement around and sales of targeted specialty crops. These crops included nursery crops, summer fruit, pick-your-own fall fruit, maple syrup, and Christmas trees. An attractive marketing campaign highlighting targeted crops and promoting our incentive was designed and launched on buyCTgrown. We chose buyCTgrown as the platform for the campaign in order to leverage its large base of Connecticut users using its search tool to find locally grown products. Our incentive, beautifully designed, family friendly crop cards, were made available at the establishments of specialty crop producers. Our desired result was for this marketing campaign, equipped with an incentive, to drive traffic to the physical establishments of specialty crop producers and boost sales of specialty crops.

Our second channel worked in tandem with the campaign to strengthen each individual farmer's online visibility by providing free expanded profiles buyCTgrown.com and any needed technical support. All profiles on buyCTgrown are searchable by product or establishment name, these same profiles also come up in external search engine queries. buyCTgrown establishment profiles provide a free dedicated space online where producers can promote their business by posting pictures, providing an establishment description, listing their products or features and linking to social media pages or any websites that they might have.

This project was not previously funded or built on a previously funded project by the SCBG or SCBG-FB.

Project Approach

Outreach

CitySeed worked closely with its advisory team to identify producers and effective outreach outlets for our marketing campaign. As a result, outreach was conducted and presentations were given at a host of producer events including the CT Fruit and Vegetable Growers Conference in 2011, 2012 and 2013, FMNP recertification meetings, the Pomological Society's Annual meeting, Maple Syrup Producers Association of Connecticut's Annual Meeting in 2011 and 2013 and the Connecticut Nursery and Landscaping Association's winter symposium 2011 and 2012, CT NOFA

Winter Conference in 2011 and 2012, CT Christmas Tree Growers Association Annual Meeting, Farm Bureau's Annual Meeting in 2011, 2012 and 2013 and the Perennial Plant Conference. These efforts resulted in over 160 producers signing up who were interested in participating in the campaign.

A list of Connecticut producers of targeted specialty crops was compiled by merging buyCTgrown's producer list, the listings from CT Department of Agriculture publications and the signups compiled from outreach events. All 300 identified specialty crop producers were mailed a carefully designed packet of information containing information on buyCTgrown and a sampling of crop cards for distribution. The mailing contained information on buyCTgrown and our Specialty Crop Campaign. It asked recipients to participate and to claim or register for a listing on buyCTgrown. Producers who were on the buyCTgrown site were also emailed and given encouragement to update their listing. As a result of these efforts over 100 specialty crop producers either updated their existing listing or registered for a new listing on buyCTgrown. Approximately 20% of those farms received some type of technical assistance from our staff in regards to their listing. Over 80 farms, or almost 30% of all identified producers of targeted specialty crops, participated in distributing our crop cards and helped to promote the campaign.

Design of Campaign and Website Integration

Little Big Shop was contracted for the design for the SCBG marketing campaign. A general look and feel for the campaign was identified through a series of design sessions. Our eye-catching design achieved the family friendly feel we had hoped for and were excited to have Faith Middleton, a well-known CT radio personality, featured on the crop cards and promote the campaign to her base of 276,000 listeners. Each crop card included exciting recipes, DIY activities, facts and sing-along-songs for all highlighted crop areas. Producers of each crop area were consulted to gather feedback on the cards design and content before going to print.

All 5 Crop Card design and printing was completed in October of 2013. 10,000 cards were printed in full color, 2,000 for each crop card area.

Soon after the design of the Specialty Crop Marketing Campaign we began work with our developer to integrate the campaign onto buyCTgrown. It became evident that its operating platform was the source of an army of issues and bugs plaguing the site. In good conscious we could not invest in the changes needed to execute the SC Marketing campaign without fixing the overarching problem. A series of meeting were held with our partners leading up to this decision and in the late summer of 2012 we contracted a new development firm to upgrade the website's existing platform to Drupal 7.0. We took this opportunity to also upgrade the look and feel of the site and create additional marketing spaces that allowed us to provide more content that catered to the consumer.

The site was rebuilt keeping the specialty crop campaign and its related producers in mind. The homepage of the site was designed to have a prominent lead banner that would showcase the Specialty Crop Block Material; special landing pages were also designed that catered to the campaign. We were also able to build new sections on the site including an Event Listings, Seasons Top 10 and Food and Goods page, dedicated to featuring Connecticut products, farmers and establishments. A quick links bar, also located on the homepage of the website, was developed to highlight crops, including specialty crops, during the season. This bar provided a shortcut to finding producers of listed crops on buyCTgrown. Special attention was given during the course of the campaign utilize these sections to better promote producers of specialty crops. For example, events like the "Tap a tree Maple Syrup Program" at Ambler Farm was listed on our website and farms like Ragland Farm and a nurseries such as Natureworks were among the producers of specialty crops that were featured during corresponding seasons. We also developed a newsletter with almost 1000 subscribers that regularly pushed out this new content and promoted marketing related to the campaign.

Campaign Implementation

The renovated buyCTgrown site was officially launched in August of 2013 and our recipe cards completed in October of 2013. Because of this timing, our marketing campaign launched with the promotion of Christmas Trees and ended recently with PYO fruit. Although our timetable was altered, we were able to promote all five crop areas. Christmas Trees promotion ran from November to December in 2013, Maple Syrup, January – April of 2014; Nursery Crops, April – June of 2014; Summer fruit from May – August of 2014 and Pick-your-own Fruit from August – September 2014.

Routine activities were preformed before and during each crops promotional timeframe. This included mailing targeted producers a thoughtfully constructed package of materials including our recipe cards, sending out press releases to our list of media contacts and promoting the campaign on our social media sites and in our newsletter and encouraging our partners to do the same. We know that these efforts resulted online promotion in the Hartford Courant and Connecticut Magazine, and in industry newsletters such as Van Wilgens and

the Farm Bureau. Also, with each promotional season, our homepage banner was updated, our quick link bar (that gives users easy access to producers of displayed crops) was updated, announcements went out in our newsletter and our social media efforts had a special focus on promoting the campaign and sharing news from farms who produced targeted specialty crops. Campaign landing pages were updated to reflect participating farms and link to all farms that produced targeted products listed on our website.

In September we began data analysis and sent out surveys with a pre paid return envelope to our partners/participating farms. Our program director worked with

Google Analytics stats to assess the success of the campaign and it's impact on Specialty Crop Farmers. The result of that synthesis will be covered in the Goals and Outcomes achieved section of this report.

Goals and Outcomes Achieved

Goal: Increased website visitors clicking on producers and any general button for the highlighted specialty crop of the season on buyCTgrown.com will result in increased sales.

Baseline: 0 (tracking capability needs to be added to buyCTgrown.com; there are no current sales figures reported by producers yet)

Target: 1000 visitors searching for identified specialty crops and surveys indicating increase in sales coordinating with click history.

Performance Measure: Number of clicks to producer's website and surveys indicating a 5% increase in sales.

Overall, buyCTgrown saw a tremendous amount of growth from its launch in 2013 to September of 2014. In part, we attribute this to our specialty crop campaign and related outreach along with our efforts to create and push curated content of interest to our increasing fan base. On average the site now sees over 4000 users a month; a significant increase from the average of 2,700 visitors/mth in 2011.

As a result, our campaign had a positive impact on Specialty Crop producers and we are happy to report surpassing our TARGET goal of 1000 searches for identified specialty crops. In total we saw 2013 searches for identified specialty crops and our campaign landing pages saw an additional 1601 page views. The chart below breaks the numbers down into hits and searches per crop area.

Crop	Searches	Hits to Campaign Page
Christmas Trees	269	480

Maple Syrup	333	430
Nursery Crops	228	146
Summer Fruit	559	316
Fall Pick Your Own	624	229
Total	2013	1601

We used our participating crop farms as a sample for our PERFORMANCE MEASURE. In total we saw over 3,500 hits to establishment webpages of targeted specialty crops during the campaign's run. Although we did not reach our GOAL of increasing sales by 5% across the board, our surveys indicated that our campaign did have a positive impact on establishment sales. Below is a bulleted summary of data analysis of the survey responses.¹

Overall:

- We saw a response rate of 43% and received 36 completed surveys out of the 86 sent out to participating farms.
- 50% of all surveyed reported an increase in sales from the previous year
- 30% reported an increase of 5% or more
- nearly 40% reported customers taking a crop card and purchased a specialty crop product
- 30% of those reporting an increase in sales also reported a majority of people taking a crop card.

NurseryCrops:

- Saw a 22% response rate with 19 participants and 4 surveys
- 75% reported an increase in sales, 50% saw an increase in sales of 5% or more
- 25% of those surveyed reported people taking a card
- Of those reporting an increase in sales, 33% reported a majority of customers taking the card

Berries:

- Saw 45% response rate with 20 participants and 9 completed surveys.
- 55% reported an increase in sales, 44% saw an increase in sales of 5% or more
- 22% of those surveyed reported people taking a card or brochure
- Of those who reported an increase in sales, 40% reported a majority of customers taking the card.

Fall Pick Your Own:

- Saw a 50% response rate with 14 participants and 7 completed surveys
- 57% reported an increase in sales, 75% saw an increase in sales of 5% or more
- 42% of those surveyed reported people taking a card or brochure

- Of those reporting an increase in sales, 25% reported a majority of customers taking the card.

Maple Syrup:

- Saw a 60% response rate with 15 participants and 9 completed surveys
- 33 % reported an increase in sales, 11% saw an increase in sales of 5% or more
- 55% of those surveyed reported people taking a card
- Of those reporting an increase in sales, 33% reported a majority of customers taking the card.

Christmas Trees:

- Saw a 50% response rate with 14 participants and 7 completed surveys
- 42% reported an increase in sales, 33% saw an increase of 5% or more
- 42% of those surveyed reported people taking a card or brochure
- Of those reporting an increase in sales, 0% reported a majority of customers taking the card.

Beneficiaries

Producers of:

- Maple Syrup
- Nursery Crops
- Christmas Trees
- Summer Fruit including: Blueberries, Strawberries, Raspberries, Peaches, Plums, Nectarines
- Fall Crops including: Apples, Pears, Pumpkins

Lessoned Learned

We believe that this project had a larger positive impact on increasing specialty crop sales than we can account for. When making this decision to revamp our website, we never imagined that its construction would take a year's time and prevent us from establishing baseline data. Although the surveys conducted helped measure our success, having a baseline to compare hits to and searches of specialty crops from before and after the campaign would have given us better and more accurate quantitative data, not reliant on information gleaned from informal surveys. Also, the incentive we chose, a printed Crop Card, although a fun and attractive family-friendly marketing piece, did not garner the results we hoped for. While only a slim amount of vouchers were downloaded and only 33% of participating farms with an increase in sales reported also seeing a majority of customers also taking the crop card, the digital images and function of the campaign garnered enough attention to generate chart breaking hits and searches to webpages of targeted producers, so much so, that we surpassed our goal! Based off of the large number of hits we saw to specialty crop establishments during the campaign period and the general success of the revamped buyCTgrown website, we believe there was a greater number of

customers who visited participating farms as a result of our marketing campaign than were actually detected. A more desirable and trackable incentive is needed to better measure the magnitude of the campaigns economic impact.

Additional Information

We are happy to report that we will continue to promote the seasonality of specialty crops on our buyCTgrown website in 2015 and possibly beyond. We will continue to collect data on web searches and statistics on the crops targeted in this grant in 2015. This is possible because the upfront investment in design and website infrastructure that is now in place as a result of this grant.

Below please find images of:

- a screen shot of the website and specialty crop banner
- a screen shot the SCB landing pages
- all crop cards and their inner content
- the follow up survey sent out to specialty crop farmers

buyCTgrown Homepage Banner (updated with each crop season)



Screenshot of Campaign Landing Page (updated with each crop season)



Fall Fruit

Eating large amounts of colorful fruits and vegetables that are rich in **VITAMIN C** may decrease the risk of developing diabetes, decrease the risk of heart disease, high blood pressure and may protect from some cancers. Pears and pumpkins are **LOW FAT** and can help maintain a healthy heart, increase oxygen, and night vision health. Pears and apples contain **FFI'S OF SOLUBLE FIBER** that helps prevent cholesterol buildup in the lining of blood vessels and can reduce the incidence of heart disease. Pears are **WATER-SOLUBLE** that prevent cells from damage and they may help reduce risk of cancer, stroke and heart disease.

So make sure to eat your **FALLS AND VEGETABLES!**

buyetgrown.com

SING-ALONG SONG:
Why don't you pick me up (pick me up)
Buttercup, baby!
Just to eat me down - I don't mess around
And best of all (best of all)
you can always eat me,
When you want to (when you want to)
and I love you too!
I need you (I need you)
more than anyone, darling!
You know that I'm healthy to start
So pick me up (pick me up)
Pumpkin, don't break my heart!

song adapted from the movie/album "Pumpkin Pie" by the Roots

DO-IT-YOURSELF - APPLE FILL OF YOUR
Kids will love this idea that uses an apple as a dip bowl. Slice off about an 1/2" from the top of the apple and a 1/4" from the bottom so that the apple is not wobbly and can stand on its own. Hollow out the apple with a melon baller (Melon ballers are easy to scoop out). Coat the inside with lemon juice and fill with **SOFT ICE CREAM**, **ICE CREAM CAKE** with a few dashes of cinnamon. Slice more apples for dipping.

CORRELATE PHS-YEAR-OWN SEASONALITY

Fruit	Aut	Fall	Winter	Spring	Summer
Apple		██████████	██████████	██████████	██████████
Cherries		██████████	██████████	██████████	██████████
Blackberries		██████████	██████████	██████████	██████████
Pears		██████████	██████████	██████████	██████████
Pumpkin		██████████	██████████	██████████	██████████

Find a pick your own farm near you! Visit buyetgrown.com or **SEARCH** for UT green fruit and veggies in your area.



Christmas Trees

THREE GREAT TREE VARIETIES:

BLUE SPRUCE (*Picea pungens*)
The Blue Spruce is native to the central Rocky Mountains, but has become a Connecticut favorite that grows well in our growing conditions. Don't let the name fool you, this type of tree can be found in a dark green or in a powdery blue. This tree has strong branches and is **USE FOR LIGHTS/ORNAMENTS!**. Because this gorgeous tree is a privacy tree!

DOUGLAS FIR (*Pseudotsuga canadensis*)
The Douglas Fir is one of the most popular trees in the United States. It can be found in both light green or with blue leaves. The Douglas fir is known for its lovely fragrance and its lengthy soft needles.

BALM OF GLENN FIR (*Abies balsamea*)
The Balsam fir is a highly aromatic tree **GIVE TO OFFICERS** and northern New England. This tree was the variety often used before Christmas tree farming and is often referred to as the "old fashioned" tree.

SING-ALONG SONG:
O Christmas Tree, O Christmas Tree
How we love to find you
O Christmas Tree, O Christmas Tree
How we love to cut our own
We do it every year
Sometimes it's cold - but even still
O Christmas Tree, O Christmas Tree
How we love to smell you

WANT TO CUT YOUR OWN?
Use the **SEARCH** tool at buyetgrown.com to find a local resource **NEAR YOU!**

CHRISTMAS TREE CARE:
If you do not plan on setting your Christmas tree up as soon as you get home, place it in a bucket of water in a sheltered, shady area. When you are ready to set up your tree, make another cut (cut out to the base of the tree). It takes **UP TO 4 HOURS** for a freshly cut Christmas tree base to stop oozing and form a seal preventing the tree from absorbing water.

When purchasing a stand for your tree, make sure to select one that holds at least a gallon of water after tree installation. According to the **National Christmas Tree Association**, it takes one quart of water is required per day for each inch of the tree's diameter.

Many fresh cut trees if properly cared for will last at least **TWO WEEKS** before drying out. Research has shown that plain water is all that is needed to keep a tree **FRISKY!**

buyetgrown.com





Campaign Follow Up Survey



Follow Up Survey to the Berry Crop Card Campaign

Thank you for participating in our Berry Crop Card Campaign! Please take this quick survey and mail it back to us using the enclosed self-addressed and prepaid envelope. This survey will help us measure the success of the campaign and learn more about what we can do better in the future!

Did your business experience an increase in on-site sales of berries this year compared to last year?

Yes No

If yes, please circle the percentage of increase that best fits

1-25% 25-45% 45-65% above 65%

Did you see customers buying your product and also taking a crop card/brochure that you were given to distribute?

Yes No

If yes, would you say that a majority of people took a card and bought your product, or would you say a minority of people took the card and also bought your product?

Majority Minority

If you reported a minority of people, what do you think could be done differently to make the cards inspire customers to buy more from you?

Do you have any other suggestions for how the card program could be more beneficial to your business?

CSAs, Community Farms and Specialty Crops

Northeast Organic Farming Association of Connecticut. Incorporated

Eileen Hochberg, Eileen@ctnofa.org, 203-308-2584

Project Summary

Community Supported Agriculture (CSA) is one of the fastest growing ways that farmers sell specialty crops to consumers. CSA's also work well as distribution hubs for other farms' produce as part of a regular or add-on share. Farmers like the CSA model since their marketing to consumers is done very early in the year for summer CSA's and they can concentrate on growing during the season. Consumer education about the advantages of a CSA is needed to help grow consumer interest and participation in CSA's.

Through research, support, publicity, CSA Fairs and CSA Grower roundtables we planned to increase the number of CSA farms, CSA members and member retention in Connecticut and access to fresh vegetables for those in need.

This project was designed to increase the sales and consumption of specialty crops by:

- Increasing the number, success, season length and size of Community Supported Agriculture (CSA) projects in Connecticut
- Educating the public about the benefits of belonging to a CSA and about ways to use, and health benefits of, the bountiful fresh produce CSAs typically provide
- Reducing turnover in membership by providing education and resources to help consumers understand what a CSA is and what membership means
- Highlighting the role Community Farms play in CSAs and in providing healthy food access to those in need

Since 2004 CT NOFA had noticed three trends in calls to the CT NOFA office and in conversations with farmers:

- A steady increase in consumer demand for CSA shares, including from institutions such as hospitals and corporations
- An increase in the number of farmers operating a CSA
- A capability of many farms to significantly grow in the number of shares from one year to the next as farmers gained experience and confidence

However, CT NOFA also heard from farmers who started a CSA that they receive twice as many applications as they can accept; from consumers that the CSAs nearby are filled; and from established CSAs that member turnover can be a problem - one large CSA had a 28% turnover rate each year, with 40% of those dropping out after the first year and the rest after the second or third year.

The timing of *CSAs, Community Farms and Specialty Crops* could not have been better. Consumer interest in local, sustainable and organic, healthy fruits and vegetables was increasing and interest among farmers in starting or expanding a CSA was very high. It

was time to fulfill the need for growth in CSA membership among both farmers and consumers.

This project was not previously funded or built on a previously funded project by the SCBG or SCBG-FB.

Project Approach

This project was based on successful strategies used in Wisconsin and New York to support CSA farmers and to increase consumer understanding of, and participation in, CSA's.

At the start of the project CT NOFA created a listing of existing Connecticut CSA's, reached out to them to bring them into the project and designed and implemented a survey in May 2012 to collect baseline data on CSA shareholder size to be used for measuring growth in CSA membership. In addition the baseline survey collected data that was useful for planning 4 CSA roundtables. This data included marketing techniques, consumer satisfaction, types of products, as well as dates for shareholder sign up, receipt of first share, and end of season. A follow up survey was implemented in December 2013 to collect comparative data.

CT NOFA organized 4 CSA fairs around Connecticut to showcase CSA farms and educate the public about CSA's, their benefits and requirements. The pilot fair was held on October 7, 2012 at the Willimantic Food Co-Op with about 150 consumers in attendance. Six farms were represented and 4 were in attendance. The second fair was held at CT NOFA's Winter Conference on March 3, 2013 with over 300 people attending the fair. Four farms were represented and 3 were in attendance. Our third fair was held on March 7, 2013 at the Billings Forge Farmers Market with 20 consumers in attendance, 3 farms who were both registered and physically there as well. Our final CSA fair was held on March 10, 2013 at Fiddleheads Natural Foods Co-Op in New London with 30 consumers in attendance, 5 farms were represented and 4 attended.

Our goal was to host 4 CSA fairs, one in 2012 and three in 2013, which we achieved. We had the further goal of 20 farms participating in the fairs reaching 600 consumers. This goal was nearly achieved with 18 farms in total represented at the fairs, with 14 farms physically present at the fairs, and approximately 500 consumers reached at the fairs.

We also hosted 4 CSA farmer roundtables to provide education and support to farmers and organizations wanting to start a CSA, and to provide opportunities for networking and sharing best practices for growing, packing and distributing among existing CSA's. Our first roundtable discussion was held on November 28, 2012 during an all day CSA School at UConn Extension where 60 farmers were in attendance, 3 of whom were CSA farmers. Our second roundtable was held at our "Getting Started in Organic Farming Conference" on January 26, 2013 where 5 CSA farmers participated in the panel/discussion with 63 farmers in attendance. The third roundtable was held at our

Winter Conference on March 3, 2013 with 4 CSA farmers participating and a total of 6 farmers in attendance. Our final roundtable was held at our Business Management on-farm workshop at the Community Farm of Simsbury on September 12, 2013 with 2 CSA farmers participating and a total of 4 farmers in attendance.

Our goal was to host 4 CSA roundtable discussions, one in 2012 and three in 2013, which was achieved. We had the further goal of having 20 new and experienced farmers participating, which we greatly exceeded with a total of 14 farmers with CSAs participating, and a total of 133 farmers in attendance.

Ongoing publicity for the CSAs, Community Farms and Specialty Crops project has taken place via the CT NOFA website and its dedicated CSA and Community Farms pages, the 2012-2013 and 2013-2014 *CT NOFA Farm and Food Guides*, as well as various social media outlets and CT NOFA's *Gleanings* and *Farmer* e-newsletters to promote the CSA fairs, roundtables and other relevant events in Connecticut, as well as community farms, their CSAs and food donations.

The CT NOFA website has been kept up to date with the latest CSA listings on a dedicated page, and publicized the CSA fairs that were held in 2012 and 2013. In addition, the Community Farms in CT are listed on the website and have dedicated pages in the 2012-2013 and 2013-2014 Farm and Food Guides.

Below is a list of sample publicity resulting from the use of press releases, CT NOFA's blog, e-newsletters (also shared on Twitter and Facebook), Facebook posts, including the number of views for many of the promotions:

- April 18, 2012 - Blog post, It's Not Too Late To Sign Up For A CSA Share, including a list of CSA's statewide - 203 views
- October 1 2012 Mansfield-Storrs Patch article promoting upcoming CSA Fair:
- October 1 & 9, 2012- 2 Blog posts promoting the CSA Fair in Willimantic, CT - 71 total views
- October 2, 2012- Facebook post promoting the Willimantic CSA Fair - 477 views, 3 likes, 2 comments, 2 shares
- November 19, 2012 - Blog post promoting the UConn Extension all day CSA School event that included the first CSA roundtable - 58 views
- January 16 2013 Blog post promoting CSA roundtable at Getting Started in Organic Farming Conference: <http://ctnofa1982.blogspot.com/2013/01/are-you-new-or-transitioning-organic.html>
- January 21, 2013- Facebook post promoting the Getting Started in Organic Farming conference mentioning the CSA education component - 503 views, 4 likes, 1 share
- February 1, 2013 - Blog post about the Getting Started in Organic Farming conference with a mention of the CSA roundtable - 105 views
- February 1, 2013- Facebook post promoting the CSA fairs in March - 272 views
- March 10, 2013 - Twitter and FB post from the New London CSA fair - 167 views on Facebook

- March 11 2013 Facebook post about recent CSA fairs and available shares
- March 18, 2013 - Blog post, Connecticut CSA fairs, promoting recent fairs and participating CSA farms - 144 views
- March 18, 2013- Facebook post promoting farms at recent CSA fairs
- June 2013 - Announced the upcoming Business Management on-farm workshop with CSA roundtable discussion September 12, 2013, and CSA follow-up survey, in *Gleanings* e-newsletter
- July 2013 - Announced the upcoming Business Management on-farm workshop with CSA roundtable discussion September 12, 2013, and CSA follow-up survey, in *Gleanings* e-newsletter
- August 2013 - Featured Heritage Gardens, "The Food Bank Farm" and its CSA, the upcoming Business Management on-farm workshop with CSA roundtable discussion September 12, 2013, and CSA follow-up survey, in *Gleanings* e-newsletter
- September 3, 2013- Facebook post promoting upcoming CSA roundtable
- September 9, 2013- Facebook post promoting upcoming CSA roundtable
- September 11, 2013-Facebook post on the Business workshop with CSA roundtable at the Community Farm of Simsbury- 668 views
- September 2013 - Featured the Community Farm of Simsbury's food donation program in our *Gleanings* e-newsletter, with a distribution of over 5,000.
- October 2013 - Featured Massaro Community Farm's donation program and Just Food's
- "CSA at Work" toolkit in our *Gleanings* e-newsletter
- October 23, 2013- Blog Post, Good Local Food and the Food Safety Modernization Act
- November 21, 2013 - Blog post and Facebook, Massaro Farm Gives Back to the Community Through Food Donations - this post on Facebook was viewed by 227 people and received 8 "likes"
- January 8, 2014- Facebook post sharing Buy CT Grown's post on finding a CSA in CT
- January 2014- Request in CT NOFA's in *Farmer* e-newsletter for farmers to submit CSA info in order to be promoted by CT NOFA
- February 21, 2014- Facebook post about CT NOFA's March 1 Winter Conference workshop titled "Starting Up and Operating a CSA?"
- February 26, 2014- Facebook post sharing Urban Oaks' post on available CSA shares
- February 2014 - Featured promotion of CSA sign-ups and ctnofa.org's listing page in our *Gleanings* e-newsletter
- March 31, 2014- Facebook post sharing Buy CT Grown's "Season Top Ten List" which includes buying a local CSA share
- March 2014 - Featured promotion of CSA sign-ups, ctnofa.org's CSA listing page, and Sport Hill Farm's CSA in our *Gleanings* e-newsletter
- April 7, 2014- Facebook post sharing Millstone Farm's post regarding their pig CSA

- April 9, 2014- Facebook post on Root Down Farm and available CSA shares
- April 9, 2014 - Blog Post, CT NOFA Accepts 3 New Journeypersons! Spotlight on Ben Harris
- April 14, 2014 - Blog Post, Journeyperson Spotlight: Josiah Venter of Ro-Jo Farms
- April 28, 2014 - Blog Post, Journeyperson Spotlight: Roger and Isabelle Phillips
- April 15, 2014- Facebook post on Ro-Jo Farm and their available CSA shares
- April 2014 - Featured promotion of CSA sign-ups, ctnofa.org's CSA listing page, and Serafina Says Farm in our *Gleanings* e-newsletter
- April 2014- Request in CT NOFA's in *Farmer* e-newsletter for farmers to submit CSA info in order to be promoted by CT NOFA
- July 17, 2014- Twitter, in praise of CSAs
- July 23, 2014- Facebook post on Camps Road Farm and their CSA
- August 2014 - Featured Sloane Farm and its CSA in our *Gleanings* e-newsletter
- October 20, 2014 - Blog Post, Updates From the Field: Ro-Jo Farms
- October 20, 2014- Facebook post on Ro-Jo Farm and their CSA
- November 14, 2014- Facebook post of article about Overstock working with local farmers to sell CSA
- November 14, 2014- Facebook post of Urban Oaks available Winter CSA shares
- November 17, 2014- Facebook post on Full Heart Farm WinterShare CSA program
- November 17, 2014 - Blog Post, Journeyperson Check-in: Allyson Angelini at Full Heart Farm *WinterShare*

Goals and Outcomes Achieved

GOAL: Organize four CSA fairs over two years involving at least 20 CSA farms.

PERFORMANCE MEASURE: Number of fairs and number of farms participating in each.

BASELINE: Currently this marketing and consumer education strategy isn't used.

TARGET: One fair in 2012 and three in 2013, for a total of 20 farms reaching 600 consumers.

OUTCOME: This goal was met in the hosting of one fair in 2012 and three in 2013. The number of farms represented was 18, quite close to the target number of 20. While approximately 500 consumers attended the fairs compared to the target number of 600, we more than made up for educating consumers about CSA's via extensive ongoing promotion and publicity on ctnofa.org, in our monthly *Gleanings* e-newsletters, 2 annual CT NOFA *Farm & Food Guides*, and extensive social media. This ongoing promotion and publicity contributed greatly to an uptick in CSA shares in Connecticut, from approximately 3,625 shares at the start of the project to 10,336 at the culmination of the project.

GOAL: Increase CSA membership by 15 percent per year through publicity and support for CSA's.

PERFORMANCE MEASURE: Number of shares sold

BASELINE: We currently estimate about 3,500 memberships, but will have a better baseline after the initial survey.

TARGET: Over 1,000 more CSA shares over the project lifetime.

OUTCOME: This goal was greatly exceeded as a result of the 4 roundtable discussions for farmers, 4 CSA fairs conducted around the state, and the extensive publicity of CSA's, CSA farms and available shares. According to survey data collected from 29 CSA farmers on the average number of CSA shares per farm in May 2012, there were approximately 3,625 shares in the state of Connecticut. The follow up survey in December 2013 collected data from 13 CSA farmers. Based on that data, there are approximately 10,304 CSA members in the state of Connecticut.

This growth in CSA membership is due to two main results of CT NOFA's CSAs, *Community Farms and Specialty Crops project*:

- An increase in the number of CSA's in the state. In 2011 when the grant application was written there were 52 CSA farms in the state. As reflected on the current November 2014 page on ctnofa.org listing CSA's, there are at the present time 92 CSA farms in the state of Connecticut, nearly double the baseline number.
- An increase in the average number of members in a CSA. The baseline survey in May 2012 revealed an average of 69.72 shares per farm. The follow up survey in December 2013 revealed an average of 112.35 shares per farm.

Whereas the goal was an increase in CSA members of 15% per year, and over 1,000 more shares over the life of the project, the number of CSA members nearly tripled, with 6,679 more shareholders in the state at the present time.

GOAL: Hold at least four CSA farmer roundtables involving 20 farmers in two years.

PERFORMANCE MEASURE: Number of farmers participating.

BASELINE: No CSA roundtables are now held

TARGET: One roundtable in 2012 and three in 2013, with a total of 20 new and experienced farmers participating.

OUTCOME: This goal was met by implementing one roundtable in 2012 and three in 2013. We greatly exceeded the target of 20 participating farmers. We had participation from a total of 133 farmers, 14 of whom had existing CSAs.

Beneficiaries

The beneficiaries of this project in the special crops industry are the farmers. Community Supported Agriculture (CSA) is one of the fastest growing ways that farmers sell specialty crops to consumers. CSA's also work well as distribution hubs for other farms' produce as part of a regular or add-on share. Farmers like the CSA model since

their marketing to consumers is done very early in the year for summer CSA's and they can concentrate on growing during the season.

However, CT NOFA had heard:

- from farmers who started a CSA that they receive twice as many applications as they can accept;
- from consumers that the CSAs nearby are filled;
- and from established CSAs that member turnover can be a problem - one large CSA had a 28% turnover rate each year, with 40% of those dropping out after the first year and the rest after the second or third year.

CT NOFA's *CSAs, Community Farms and Specialty Crops* project resulted in great benefit to the farmers:

- An increased number of CSA's in the state, from 52 to 92
- An increase in the average number of shares per farm from 69.72 to 112.35
- An increase in the approximate number of shares in the state from 3,625 to 10,304
- An increase in member retention. In the May 2012 survey 65% of respondents reported a carryover rate between 51%-100%, and in December 2013 91% of respondents reported a carryover rate between 51% =100%.

Through this project farmers benefited from increased consumer participation in one of the most effective marketing and sales tools available to local farmers in the state of Connecticut.

Lessons Learned

All of the goals of this project were met, but the goal that had the most outstanding results was the most important one of the project: Increase CSA membership by 15 percent per year through publicity and support for CSA's, with a targeted increase of 1,000 shares over the lifetime of the project.

The outstanding results were due to the achievement of the other project goals. Through farmer education at 4 roundtable discussions, consumer education and publicity of CSA farms at 4 CSA fairs, and extensive social media publicizing CSA's, CSA farms and available shares, an exponential growth in CSA's and CSA shares in the state of Connecticut was achieved. In addition member retention increased:

- The number of CSA's in the state increased from 52 in 2011 to 92 in 2014
- The average number of CSA shares per farm increased from 69.72 in May 2012 to 112.35 in December 2013
- The approximate number of shares in the state increased from 3,625 in 2012 to 10,304 in 2014

- There was a significant increase in member retention. In the May 2012 survey 65% of respondents reported a carryover rate between 51%-100%, and in December 2013 91% of respondents reported a carryover rate between 51%

CT NOFA will continue to heavily publicize CSA's to consumers, and will also continue educating farmers on the benefits and best practices of CSA's. It has been enormously rewarding to run a campaign that results in so much economic benefit to specialty crop farmers in Connecticut.

Additional Information

The following are links to a sampling of the extensive promotion that took place during the grant period and afterwards, of CSA farms and shares, CSA fairs, CSA roundtables, as well as promotion of Community Farms and their CSA's and food donation programs:

- CSA Listing page on ctnofa.org: <http://ctnofa.org/CSAs.htm>
- Community Farms page on ctnofa.org: <http://ctnofa.org/CommunityFarms.html>
- 2012 CSA Fair page on ctnofa.org: http://www.ctnofa.org/events/2012_CSA_Fair.html
- 2013 CSA Fairs page on ctnofa.org: http://ctnofa.org/CSA_Fairs.html
- 2013-2014 *Farm & Food Guide*: http://ctnofa.org/documents/ff_guide_final_web.pdf
- 2013 Winter Conference program featuring CSA Fair, CSA roundtable and several workshops on CSA's and Community Farms: <http://www.ctnofa.org/winterconference/2013%20WC%20programOPT.pdf>
- October 1 2012 Mansfield-Storrs Patch promoting upcoming CSA Fair: <http://patch.com/connecticut/mansfield/an--meet-your-local-csa-farmer-at-the-downtown-country-fair>
- October 1 2012 Blog post promoting October 2013 CSA fair: <http://ctnofa1982.blogspot.com/2012/10/join-us-at-csa-fair-this-sunday.html>
- October 9 2012 Blog post promoting CSA fair day before and available shares: <http://ctnofa1982.blogspot.com/2012/10/our-csa-fair-was-this-weekend.html>
- January 16 2013 Blog post promoting CSA roundtable at Getting Started in Organic Farming Conference: <http://ctnofa1982.blogspot.com/2013/01/are-you-new-or-transitioning-organic.html>
- March 11 2013 Facebook post about recent CSA fairs and available shares: <https://www.facebook.com/ctnofa/posts/10151322816361048>
- March 18 2013 Facebook post about the farms at recent CSA fairs: <https://www.facebook.com/ctnofa/posts/227552050724840>
- *Gleanings* newsletter August 2013 featuring Heritage Gardens, "The Food Bank Farm" and its CSA, the upcoming Business Management on-farm workshop with CSA roundtable discussion September 12, 2013, and CSA follow-up survey: <http://ctnofa.org/News/August2013.html>
- *Gleanings* newsletter October 2013 featuring Massaro Community Farm's donation program and Just Food's "CSA at Work" toolkit: <http://ctnofa.org/News/GleaningsOctober2013.html>

- *Gleanings* e-newsletter March 2014 featuring promotion of CSA sign-ups, ctnofa.org's CSA listing page, and Sport Hill Farm's CSA: <http://ctnofa.org/News/March2014.html>
- *Gleanings* e-newsletter April 2014 featuring promotion of CSA sign-ups, ctnofa.org's CSA listing page, and Serafina Says Farm: <http://ctnofa.org/News/April2014.html>
- November 17, 2014 Facebook post on Full Heart Farm WinterShare CSA program: <https://www.facebook.com/ctnofa/posts/10152440264616048>

Increasing competitiveness and in-state local consumption of Connecticut-grown fruits and vegetables by increasing supply chain options

Connecticut Farm Bureau Association, Inc.

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Project Summary

The initial purpose of this project was to increase Connecticut's consumption of Connecticut grown fruits and vegetables by optimizing understanding of marketing opportunities for large-scale growers.

At the start of this project, based on USDA data we estimated that less than 1% of produce consumed in Connecticut is grown locally. Our initial goal was to double that amount as a result of this grant. As initially drafted, the scope of the project was fairly broad and included examining the barriers that prevent the sale of locally grown produce in large institutions including hospitals, colleges and school as well as retail grocery store outlets. While CFBA acknowledges that increasing use of Community Supported Agriculture (CSA) and farmers' markets permit opportunities for producers to market directly to consumers, in order to "move the needle" on volume sales opportunities must include grocery outlets.

Soon after Connecticut Farm Bureau Association (CFBA) began our grant work, The Connecticut Department of Agriculture (CT DoAg), through the Governor's Council on Agricultural Development (GCAD), began work with the University of Connecticut (UConn) to establish market data around consumption of all local agricultural products (data not limited to just fruits and vegetables). When the Connecticut Legislature established the GCAD, they set a goal of increasing the percentage of consumer dollars spent on all Connecticut-grown products to not less than 5% by 2020.

Working with other Specialty Crop Block Grant (SCBG) awardees during a meeting hosted by the CT DoAg, we realized that narrowing the scope of CFBA's project would prevent duplication of effort as the scope of other projects overlapped with our research. As we began to gather data and feedback, the scope of this project narrowed from its first iteration to a focus on identifying barriers to the sale of locally grown produce within grocery stores. The final scope of our project focused exclusively on barriers to increasing sales of Connecticut grown fruits and vegetables in Connecticut-based grocery stores. Other grantees were already focusing on restaurants and institutions such as hospitals and colleges, and a consumer-focused effort.

Connecticut is currently experiencing a renewed and sustained interest in locally grown produce. In a recent report issued by the USDA Census of Agriculture, Connecticut led all of the New England states with a 22% increase in the number of new farms created since 2007. Consumer demand and interest in locally grown has increased significantly over the last few years. Evidence of this consumer interest can be seen in the greatly increased number of Connecticut farmer's markets. Furthermore, Connecticut's GCAD has been convened to develop a state strategic plan for agriculture, and increase the

sale of Connecticut-grown products. Connecticut farms are an important economic driver for the state employing about 27,000 people and generating \$3.5 billion in economic activity.

The CT DoAg and GCAD supported the goal of increasing consumption of Connecticut grown products by no less than 5% by 2020. This project highlights the barriers to achieving this goal as well as offers critical advice to growers on building relationships with grocery retailers.

The point of view that medium and large fruit and vegetable growers need to farm and market products on a scale that helps them optimize profitability was highlighted in a UConn presentation to the GCAD in Q4 2014, more than two years after CFBA proposed this project. In order to significantly increase locally grown fruit and vegetable consumption in Connecticut, our state farmers will need to increase production and distribution of produce. Medium and large scale producers are best suited to providing the quantity and volume that grocers require.

This project was not previously funded or built on a previously funded project by the SCBG or SCBG-FB.

Project Approach

Fruit and Vegetables Advisory Team.

For the purposes of this grant, CFBA called upon our Fruit and Vegetable Advisory Committee to provide project input. This group consists of a geographically diverse group of some of Connecticut's premier fruit and vegetable growers. Over the course of the grant work, many of the identified stakeholder representatives were involved with the project. Representatives from UConn, supermarket buyers, food distributors and producers were also engaged in the project.

Fruits and Vegetables Growers Committee.

CFBA's seven-member advisory committee previewed the Final Report and was instrumental in providing growers' input and perspective on CFBA's findings.

Establish a benchmark.

Coincidental with this project, the GCAD worked with UConn to determine that the percentage of Connecticut-grown products being consumed in state is an estimated 2.5%. The 2.5% calculation encompasses all food products including dairy, eggs, meat, etc. Although UConn did not provide a fruit and vegetable consumption breakout, we believe that our original estimate of less than 1% for produce from 2007 USDA data was correct.

Conduct information-gathering interviews

To kick off the work on this project, CFBA participated in interviews with 52 individuals involved in the agriculture and food systems in Connecticut through research conducted by the Governor's Council on Agricultural Development. The purpose of these

interviews was to assess the role of agriculture in Connecticut and opportunities for growth. Fourteen of these interviews were with individuals directly involved in fruit and vegetable production, processing or distribution. These interviews provided critical information on profitable business models for farms and future successful farming strategies. Attached is a summary of challenges and opportunities facing growers, produce aggregators and processors that we discerned from these interviews.

The bulk of our time and attention for this grant focused on interviewing grocery store managers, producers and produce distributors to better understand the food distribution system in New England. CFBA's team completed twelve personal or telephone interviews with grocery produce buyers or managers from nine different chains, and an additional five interviews with produce distributors.

Disseminate the Information

Offer one-on-one or small group consultation to fruit and vegetable farmers

CFBA attended a number of producer trade shows and food system meetings to enhance our relationship with producers and share the strategies that we developed. These included:

- Co-sponsored a Food Safety Modernization Act (FSMA) workshop for growers with UConn Extension in October 2013. This is particularly important to larger grocery chains and wholesale distributors
- Build Your Network; Grow Our Future for new and beginning farmers, organized by UConn Extension December 2013
- Participated in the New England Fruit & Vegetable Conference December 2013
- Co-sponsored Produce Marketing Association workshop, hosted at Sysco March 2014. Highlighted in opening remarks key points from this project.
- Attended numerous meetings of Connecticut Food System Alliance (3/year)
- Participated in the Connecticut Northeast Organic Farmers Association (NOFA) Winter Conference to solicit interested farmers
- Participated in the Connecticut Fruit and Vegetables Conference January 2014
- Co-sponsored a program with UConn on Agricultural Collaborations in March to explore cooperative opportunities for this and other agricultural sectors.
- Attended a Pomological Society meeting of Connecticut producers July 2014
- Previewed out findings with our Fruit & Vegetable Advisory Committee, a group of seven medium to large vegetable and fruit growers who all have wholesale grocery sales experience as well as another large, experienced grower.

In addition, we had an extensive session with the commercial crop advisor from UConn Extension to solicit his experience advising producers. The focus of this meeting was to analyze the impact of direct to consumer sales vs. wholesale sales on the bottom lines of local farms. UCONN Extension fruit and vegetable educators have helped facilitate one on one and small group meetings with farmers they believe would most benefit from our findings. These appointments are scheduled for December 2014 through 2015.

Furthermore, CFBA will be presenting a workshop in February 2015 at the Harvest New England Conference in Sturbridge, MA to present the findings from this project.

Resources developed from this project are available on the CFBA website at this link: <http://www.cfba.org/ctfarmbureaufarmtogrocery.htm>

Specifically there will be posted a list of grocery stores in Connecticut, and an overview of the opportunities for growers as well as a PowerPoint of our presentation. This will continue to be available, and promoted to fruit and vegetable producer groups.

Launch a public awareness campaign. It was agreed that this portion of the grant was not necessary for CFBA to focus on it because another SCBG recipient in Connecticut was focused on this strategy.

Given the depth of consumer interest in locally grown produce, Connecticut grocers are interested in selling more local produce. However, grocers do not believe that they can charge a premium for local products. Therefore they base their pricing on market rates of non-local produce. We believe that there is significant room for growth in sales of Connecticut grown produce to state grocery stores of all sizes and types. However, in order to take advantage of this opportunity Connecticut growers must increase their production volume and improve their efficiency in order to sell at or near market prices.

Farmers interested in selling to grocery stores must develop relationships with grocery produce buyers and managers and learn about each retailer's unique needs and wants. In addition, many farms may not have the capacity or interest in meeting food safety certification requirements such as the Food Safety Modernization Act (FSMA), Good Agricultural Practices (GAP) or other third party food safety certification. These certifications are required by larger grocers and increasingly required by mid-sized grocers. Many grocery stores also expect additional services beyond harvesting such as cleaning, grading, special packaging, labeling and delivery services be included as part of the business arrangement. Farmers may not be accustomed, nor staffed, to provide these additional services.

The biggest barrier produce managers face is finding local farmers who can produce significant quantities at market prices. Wholesale farmers in Connecticut face an uphill challenge because of the small profit margin on wholesale and the small scale of existing farms. Because produce managers base their purchase price on market rates, the farms best financially suited to meet their price point are large scale farms who can make use of economies of scale. Identifying a profitable economic model of farming and distributing Connecticut fruits and vegetables would greatly enhance the availability of products in Connecticut grocery stores. The grocery stores we interviewed were not interested in paying more for locally grown.

Since most of Connecticut farms tend to be smaller and the cost of doing business in Connecticut is high, it is difficult to reach the economies of scale necessary to compete with lower cost regions. These Connecticut specific challenges prevent our farms from increasing their production.

Please see our full attached report on our Findings which we use in conversations with producers that provides more detailed analysis and recommendations.

While CFBA staff were the primary staff to implement this project, we worked closely with a number of different partners to complete our grant.

Mid-way through this project, the **Connecticut Department of Agriculture** convened a meeting of other Special Crop Block Grant recipients to review our goals and projects. In order to avoid duplication and ensure efficient use of resources, we decided to streamline our focus to avoid overlap. The CT DoAg was also instrumental in providing us a workshop opportunity in the February 2015 Harvest New England Conference, held every other year.

We also worked with **UConn Extension** by meeting with Jude Boucher, a commercial crop production expert to gather his insights on wholesale produce sales to grocery stores and Mary Concklin who is helping us to identify growers who might potentially benefit from this information.

The **Connecticut Governor's Council for Agricultural Development** worked closely with us to research and understand produce marketing, sales and possible obstacles for growth.

We called upon our **CFBA Fruit and Vegetable Advisory Committee** to provide input on the data and findings. Their feedback both as a group and individually was helpful.

Furthermore, we have participated in the **Connecticut Food System Alliance** meetings to begin sharing our findings and information.

We collaborated with the **Produce Marketing Association** and **SYSCO Foods** on a workshop for large-scale growers.

Goals and Outcomes Achieved

As outlined in our scope of work, CFBA activated a fruit and vegetable growers committee to assist us in guiding this work.

Our work included developing an inventory of markets and quantifying potential markets. Through initial conversations with produce distributors, we gathered information about the current food distribution system that grocery stores use. This helped us identify intermediary and mainstream supply chains throughout the state.

Rather than conducting regional roundtables with produce buyers, we found individual interviews more productive. We conducted interviews with nine different grocery stores to seek their thoughts and feedback on:

- purchasing locally grown;

- their current process for purchasing locally grown;
- barriers to purchasing locally grown;
- the factors influencing purchase of locally grown;
- the market for locally grown;
- new product potential;
- marketing locally grown produce.

Please see the attached complete list of questions.

We also interviewed three produce distributors to understand the food distribution system beyond direct farm to grocery store sales.

Goal:	Increase Connecticut's consumption of CT-grown fruits and vegetables
Performance Measure:	Date from USDA, CT Dept of Ag and UCONN assess CT production
Baseline:	<1% of fruits and vegetables consumed here are currently grown here
Target:	Double consumption by adding new producers, increasing production and opening new markets to producers

Our stated goal for this project was to increase Connecticut's consumption of Connecticut-grown fruits and vegetables. Specifically we established a baseline that less than 1% of fruits and vegetables consumed here are currently grown here. Our target was to double consumption by adding new producers, increasing production and opening new markets to producers.

When we initiated this project fruits and vegetables accounted for 10.7% of the cash receipts of all Connecticut commodities at \$58,871,000 according to the 2007 USDA Census of Agriculture. The 2012 census shows that sector has grown to represent 11.6% of all Connecticut commodities at \$63,735,000 in total sales, so the baseline has already increased from our starting point growing slightly.

Although Connecticut is reporting a growth in the number of farms overall, these are primarily small operations with limited acreage. USDA NASS reports there are 935 total farms involved in fruit and vegetable production. Those operations with 50 acres or more are flat or declining which are the farms this Special Crop Block project is targeting. Analysis by UConn of USDA data indicates that the largest 264 farms, of all types, produce 85% of all Connecticut sales. It is our opinion that the fruit and vegetable producers most likely to benefit from this Specialty Crop Block Project are among those in the top 264 farms.

In hindsight our goal of increasing Connecticut's consumption of Connecticut grown fruits and vegetables seems ambitious and perhaps better suited to a longer-term project. Upon examination, the task of navigating the path to wholesale grocery

distribution is more complicated and entrenched than initially envisioned. While executing this grant, we began to understand the complex food distribution system in this country and how that hinders the market availability of Connecticut-grown food. Larger market forces beyond our control play a critical role in wholesale buyer choices and consumer decisions. Increasing the percentage of Connecticut fruit and vegetables from less than 1% to 2% is a significant task. This task is achievable only if the significant barriers discussed earlier are addressed in substantive ways.

We can report that we now have a more complete understanding of the food distribution system in Connecticut, the process by which grocery stores source their produce and internal grocery store processes and procedures to approve produce vendors. We have developed a detailed report of our Findings (see attached). We are reviewing these findings with farmers throughout the state to provide them with recommendations on selling to grocery stores. Complicating the situation is the fact that wholesale to grocery stores under current terms and conditions is not necessarily a profitable market for many Connecticut growers.

While most of the produce buyers were eager to purchase more locally grown, they were not willing to pay anymore for the product than market price. On the other hand, farmers we met with outlined the numerous disadvantages of selling to grocery stores. The combination of high risk and low return, make increasing the availability of locally grown produce in grocery stores highly unlikely. Faced with the challenges and significant barriers selling to grocery stores that we have already highlighted, farmers may find more profit in direct to consumer sales and large-scale value added products.

As described above, the goal outlined was perhaps more ambitious than we understood. Marketing wholesale to grocery stores is not for everyone. After meeting with numerous buyers and farmers, we have come to understand that our produce distribution system in Connecticut is much more complex than imagined and there are significant barriers to growth beyond simply introducing farmers to produce buyers.

- Essentially, Connecticut growers are competing with large farms both internationally and nationally, where vegetables are grown on thousand acre farms. Their economy of scale provides them with an extremely cost effective operation which drives down their sale price. Connecticut's total reported acreage in fruit and vegetable production is 9,293 acres. Even our largest Connecticut fruit and vegetable farms are much smaller in scale and not able to match the size and volume of competing farms outside this region. Providing a product to a grocery chain at a market price is challenging and often does not offer a sustainable profit margin for Connecticut growers.
- It is physically challenging for most Connecticut growers to provide the sustained volume to supply centralized distribution centers. Even transportation and aggregation with other growers is an impediment because the infrastructure is not present to expedite that process.
- Connecticut's growers are finding it burdensome and expensive to comply with business rules as well as the food safety rules that large distributors and chain

grocers require. The cost of the equipment, worker training and compliance initiatives all add to the input cost of the produce, yet the cost is not offset by increased market price.

- Input costs in Connecticut are higher than many competing growing markets including taxes, land costs, energy, labor and transportation costs. The scale of the typical farm's yield can't absorb those costs efficiently.
- Consumers, according to the produce buyers, are not willing to consistently pay extra for locally grown at the grocery store. Locally grown produce must compete with fruits and vegetables from outside the market on price. Even in the height of Connecticut's produce season, most produce buyers reported no more than 20% of their department purchases are locally grown.

Beneficiaries

1. **Farmers** – Growers large enough to serve wholesale grocers found elements of this project helpful. Additionally, they shared their personal experiences with vendor approval processes, food safety certification requirements and enhancing product marketability through special packaging. (Approximately 100)

2. **Policy Makers** – Given the keen interest in increasing locally grown and given that most consumers purchase their produce from grocery stores, policy makers on both the state and national level will benefit from our findings and research. (Approximately 207)

3. **Educators** – This report brings a unique business perspective to farm to grocery store sales that will help educators gain insights into profitability, economies of scale and market forces. (Approximately 135)

4. **Agricultural Service Providers** – Many agricultural service providers have unique skill sets typically in production, technical services or other specific knowledge areas. Our hope is that agricultural service providers can use the project findings to guide farmers to markets that fit their capacity and strengths. (Approximately 104)

5. **Food System Advocates** – Through our participation in numerous food system meetings, we have shared our initial findings and offered some unique insights into the world of farm to grocery store. (Approximately 100)

6. **The Governor's Council for Agricultural Development** - GCAD will benefit from the insight this project brings to the fruit and vegetable sector. Their ongoing study of infrastructure and plans for renovating the Hartford Regional Market that supports this sector will find this data valuable. (Approximately 18)

Our number estimates include both individuals and groups already benefiting from the information as well as individuals and groups who will benefit from future presentations and meetings.

Lessons Learned

There were six unexpected things that we learned from this project:

- 1) The current food distribution system in the United States is complex and places a premium on efficiency and competitive pricing - Grocery stores have a vast and robust system available at their fingertips which allows them to purchase a myriad of products from a wide variety of suppliers at extremely competitive prices. The growers and distributors that are best able to participate in this system are those with the largest capacity. Because of the small scale of Connecticut farms, they are poorly suited to compete with large scale growers from other countries and larger states such as California and Florida and even closer states such as New York and Pennsylvania. Because price is such a strong driver, simply matching grocery stores with suitable Connecticut producers will not address the fundamental issue of increasing the sale of locally grown.
- 2) Grocery stores will not pay more for local produce – There is a mis-perception that grocery stores will pay more for locally grown produce. While almost all grocery stores we met with promoted their relationship with local farmers and praised the quality and taste of Connecticut produce, none were willing to pay more for Connecticut products. We found that even high-end grocery stores that generally charge more for their products cannot charge a premium for locally grown products and therefore cannot compensate Connecticut farmers at a higher rate for their produce. In a few instances where stores did pay more for locally grown, their profit margin was decreased. As a result of this decreased profit margin, there was unfortunately an incentive to carry local but not to sell large quantities.
- 3) Growing produce for wholesale at grocery stores is an increasingly challenging business model – The wholesale price of produce has inched up over the last 30 years, while the price that consumers pay has tripled in the last 30 years. This disparity in compensation to farmers means that only the largest of producers are able to compete effectively because the profit margin is so slim. Given the vagaries of weather and other implicit risks in farming, putting together a viable business plan selling to grocery stores is both risky and tremendously challenging. In fact because of this disparity, a Connecticut production expert advises vegetable growers to sell retail directly to consumers so that they can take advantage of the higher consumer price they receive through direct retail sales.
- 4) Wholesale produce distributors play an important role in our current food distribution system by providing supplemental services to grocery stores – Produce distributors are often accused of unfairly taking the lion's share of the profit when produce is sold to a grocery store. What is sometimes overlooked is the work involved in receiving produce, packaging, storing, transporting, delivery, selling, billing and tracking payments. Farmers typically have their hands full with

growing, harvesting, cleaning and grading. Few farmers have the interest or capacity to take on these typical distribution tasks.

- 5) There are opportunities within the current food distribution infrastructure system – Based on our discussions with current Connecticut distributors, there are a number of opportunities to build capacity within the current system. For instance, one distributor mentioned a large warehouse and processing facility that is typically at about 50% of capacity. Could we work with area farmers to aggregate products in that facility? One major Connecticut distributor noted that they are always looking for new producers and welcome developing relationships with new growers. Building on opportunities within the current system would be an obvious first step in enhancing and expanding locally grown.
- 6) Opportunities for Smaller Producers – Although we concentrated on medium and large-scale growers, we were surprised to discover that there are opportunities for small growers to build relationships with grocery stores in their region. Devotion to hyper-local producers is still appreciated by some local grocers. Small independent grocers are more nimble and able to respond quickly to variation in local product availability. Even within large chains, a local produce buyer can establish local produce relationships and source directly outside of their central distribution buying method which provides opportunity for smaller growers. Produce managers may be willing to work with smaller growers to purchase unique and boutique products not available elsewhere.

In conclusion, there are key market forces that need to change in order for this goal of increasing local fruit and vegetable consumption by increasing supply chain options to be achieved in Connecticut.

1. Connecticut farms need to increase their scale of production to be competitive. This can be achieved by creating larger farm units, or building cooperative efforts that offer aggregation options with other mid-size growers to meet the demands of the wholesale market,
2. Since the market price is not flexible, the cost per unit of produce needs to be reduced to assure profit for farmers on a per unit basis. This can be achieved by mechanization and other methods such as scale to increase efficiency.
3. To expand to wholesale grocery markets, farms must participate in food safety certification programs as a price of entry.

Additional Information

Materials for this section can be found here:

<http://www.ct.gov/doag/cwp/view.asp?a=3243&Q=558584>

In-State Better Process Control School for PA 10-103 Exempt Operations
Connecticut Department of Consumer Protection, Division of Food & Standards
Frank Green frank.greene@ct.gov, 860-713-6160

Project Summary

To host a recognized BPCS, who will provide appropriate in-state training on process-control for acidified foods, jams and jellies. The purpose of which is to enable those farms that seek to produce value added products for their specialty crops can do so in a safe and sanitary way. BPCS's certifies supervisors of shelf-stable, acidification, and container closure evaluation programs for processors. Such certification is required in order for such processors to be compliant with FDA regulation, 21 CFR 108, 113, and 114, (effective date May 15, 1979.) These regulations are designed to prevent public health problems, such as food borne outbreaks and in particular Clostridium botulinum intoxication in low acid and acidified canned foods³. Connecticut enacted a law in 2010, Connecticut Public Act (PA) 10-103, exempting from inspection retail-only possessors of acidified canned foods and jams and jellies. The exempt on-farm products are restricted to retail sales at the farm or farmer's market kiosk using farm grown specialty crops. The Act requires appropriate training (specified by the Department) along with other requirements related to sanitary production practices, product labeling and water quality product testing. BPCS's provide the best practical application of the principles set forth by FDA for acidified food and are therefore appropriate to PA 10-103 exempt farms. Similar regulations and training requirements are in effect for thermally processed meat, poultry products and pet foods. Instructors for these schools are drawn from the FDA-approved universities, the Grocery Manufacturers Association (GMA), the GMA Science and Education Foundation, industry, and FDA.

Locally produced, value added products are in demand at this time^{4,5} and benefit the agricultural community by improving the economics of agriculture (particularly for small farms), preserving farmland, reducing the distance food travels between farmers and consumers and providing buffers for supply disruptions. However all these benefits may be threatened if the locally produced product is not perceived as safe⁶. Paths to appropriate training did not exist locally at the time of initial application in Connecticut nor in Southern New England. (The University of Massachusetts has established a Better Process Control School during this time period but until recently did not have regularly scheduled courses.

³ Food and Drug Administration. Bad Bug Book, Foodborne Pathogenic Microorganisms and Natural Toxins. Second Edition. [pp. 108]. 2012

⁴ UW-Extension Ag Innovation Center. "Scaling Up: Meeting the Demand for Local Food," December, 2009

⁵ Northeast Sustainable Agriculture Working Group. "A Northeast Farm Bill Agenda: Priorities for the 2012 Farm Bill." May 2012

⁶ <http://www.cdph.ca.gov/Pages/NR14-067.aspx> "CDPH Warns Consumers Not to Eat VR Green Farms Jarred Food Products Because of Botulism Risk," July 2014

This project was not previously funded or built on a previously funded project by the SCBG or SCBG-FB.

Project Approach

This project relates to state-wide food safety in the direct preparation of exempt form inspection, shelf-stable, value-added local products from fruits and vegetables, specialty crops, produced on Connecticut farms. This project addresses the needs of those small, local farmers engaging in such production or are planning to engage in the production of foods from crops grown on their farms. The chief limiting factor identified is the dearth of appropriate training entities, e.g. Better Process Control Schools⁷ that are conveniently located to Connecticut growers. This project sought to provide such a venue in the state and did so in 2013.

BPCS training is mandated and in this instance intended for and directed at the level of operating supervisors of acidified foods processing and packaging systems in acidified food establishments. It will qualify commercial operators producing acidified foods (fresh packed pickles, acidified peppers, salsa, etc.) to meet the requirements of the umbrella Good Manufacturing Practice (GMP) and the specific GMP's for acidified foods (21 CFR Part 114).

By definition, an "operating supervisor" is a person who is in the plant at the time the product is processed and packaged. The operating supervisor is responsible for the use of adequate pH and time and temperature processes for rendering the product safe, proper record keeping and for control programs which will detect deviations from safe operating procedures.

The operating supervisor may be the same person who conducts the processes and controls. However, each operation during each hour of plant operation must be under the supervision of a person who has been certified as having satisfactorily completed an approved course of instruction.

Food processors instructional materials and exams, created under the auspices of the Grocery Manufacturers Alliance (GMA) Science and Education Foundation, will be used for the Better Process Control School. Only those sections related to certification in Acidified Foods Processing and Packaging for glass or rigid plastic containers will be covered.

A Better Process Control School class was conducted in December 10th and 11th, 2013 at the Connecticut Farm Bureau Offices in Windsor, CT. The class was the culmination of a long process working with state procurement and the class presenter was Amanda Kinchla, of the University of Massachusetts Extension System. There were 27 enrolled participants in the class. All the enrolled persons were farmers of specialty crops, recruited through a partnership with the Connecticut Farm Bureau.

⁷ http://www.gmaonline.org/file-manager/Events/Bro_BPCS-011411.pdf

The class was modified to concentrate on acidified canned foods as indicated above. Overall the class was well received, evaluations were generated from 10 participants, and they identified the following issues:

- Format. There was a mixed reception to the format of the class; about half of the respondents did not expect the class to be as technical as it was (BPCS's classes are conducted as required under the appropriate FDA regulations, see above). This can be looked at in a multitude of ways, as a cause for concern that the risks related to canned foods are not appreciated or appropriately accounted for to a need for information and approaches tailored to small producers. Comments on this topic stressed the need for more practical exercises; this adds to the expense but perhaps bolsters the need for an established test kitchen and a BPCS provider in Connecticut.
- Approximately 60% of the respondents stated that the text was clear, 30% mostly clear and 10% not clear.
- Topics that were determined to be most valuable:
 - Records and recordkeeping - 80%
 - Principles of acidified food – 50%
 - Principles of thermal processing – 30%
 - Principle of food plant sanitation – 30%
 - Equipment instrumentation – 30%
 - Microbiology of food – 10%
 - Food container handling 10%
 - Individual comments stressed the need for more hands-on learning and a greater focus on small entrepreneurs.
- The instructor, Amanda Kinchla⁸, received high marks for her instructional talents with 80% of the respondents indicating that the materials were presented in a clear and understandable manner.
- Materials most interesting to the attendees are as follows:
 - Microbiology of food – 50%
 - Principles of acidified food – 60%
 - Principles of thermal processing – 50%
 - Principles of food plant sanitation – 20%
 - Food container handling – 20%
 - Records and recordkeeping – 60%
 - Equipment instrumentation and operation – 40%
 - Closures for glass containers – 10%
 - Individual comments centered on the need for an explanation of the impacts on small businesses

⁸ <http://www.umass.edu/foodsci/faculty/amanda-kinchla>

Most of the respondents, 80%, would recommend the course to others. Suggestions for improvement centered on making the course more accessible for small farm producers.

We again attempted to stage the program in Spring of 2014 and in the following Fall but were not able to garner the attendance needed to efficiently complete the program.

This occurred not from lack of interest but rather from the inability to get away from farm related activities in the spring and fall⁹.

The partnerships we fostered with Tracey McDougall, Special Projects Coordinator for the Connecticut Farm Bureau and with the instructor, Amanda Kinchla were invaluable.

The support that we received and the contacts afforded to us by partnering with the Connecticut Farm Bureau leveraged the effect of the program, increased recruitment and improved targeting to the appropriate cohort.

There were notable difficulties in staging this project:

- Navigating the procurement channels for such a course was problematic. There are many providers listed by the GMA but as indicated above there were no in-state providers. This was also a new and unique type of training and sorting out how the selection process should be accomplished was difficult and time consuming.
- Sequestration. In the winter of 2012-2013 there was concern about the impact of sequestration on the ability to fund projects. Since it is apparent, as documented above, that the window to provide the training is severely limited to perhaps the two or three winter months. The uncertainty generated by sequestration disrupted plans.

Goals and Outcomes Achieved

There were twenty-seven participants and 10 returned completed surveys. Efforts to get a greater return were not successful. The provision of a Better Process Control class as spelled out in the initial application which was to provide an in-state BPCS class and this was accomplished in December, 2013. This, the provision of the BPCS class was the stated goal and this goal was achieved.

There continues to be an unmet need in that there is still no currently recognized BPCS provider located in the State of Connecticut and interested entrepreneurs must still travel outside of the state's borders to get appropriate training in the traditional manner. There are some new options through for online instruction at the University of California at Davis¹⁰ that may prove viable but as indicated above hands-on training is very much desired.

The lack of an in-state provider contributes to the lack of awareness of the food safety risks inherent in canned products, in particular for those producers outside of the normal

⁹ Discussions with UConn Extension System confirmed the impression, based on similar experience with GAP coursework.

¹⁰ http://www.gmaonline.org/file-manager/Events/Bro_BPCS-011411.pdf

commercial setting.¹¹ There is an initial perception that that there is no risk and when informed of the risk, a perceived skepticism that the risk is overstated is noted.

While the risks related to botulism are relatively rare the incidence and prevalence is not insignificant¹² with, according the Centers for Disease Control and Prevention (CDC), an average of under 150 cases reported each year. Botulism can result in death due to respiratory failure. However, in the past 50 years the proportion of patients with botulism who die has fallen from about 50% to 3-5%. A patient with severe botulism may require a breathing machine as well as intensive medical and nursing care for several months, and some patients die from infections or other problems related to remaining paralyzed for weeks or months. Patients who survive an episode of botulism poisoning may have fatigue and shortness of breath for years and long-term therapy may be needed to aid recovery. These are reasons why the regulatory oversight tends to be very prescriptive and intolerant of divergent approaches.

Evaluations were also collected from the program participants as part of the agreed on performance measures, the results of which have been summarized above.

Below is a table from the initial application on the goal, performance measure, baseline and target for this project:

	ORIGINAL GOAL	ACTUAL GOAL
Goal:	Provide accessible appropriate in-State food safety training for PA 10-103 exempt processors of acidified foods in GMP's, container closure, process control and general hygiene principles for food production.	December 10th and 11th, 2013, provided a BPCS class at the Farm Bureau offices in Windsor.
Performance Measure:	Training provided in-State, by a recognized Better Process Control School (BPCS) as listed by the Grocery Manufacturers Association (www.gmaonline.org/file-manager/Events/Bro_BPCS-011411.pdf .) The BPCS will be required to conduct course	Instructor, Amanda Kinchla Assistant Professor, Extension Specialist, University of Massachusetts at Amherst Field of Study: Food Safety, Product Development, Commercialization, Food Science Outreach Education. Office: Room 231, Chenoweth Laboratory Telephone: (413) 545-1017 Email: amanda.kinchla@foodsci.umass.

¹¹ "CDC - Home Canning and Botulism." <http://www.cdc.gov/features/homecanning/>

¹² CDC. "Botulism in the United States, 1899 – 1996, Handbook for Epidemiologists, Clinicians and Laboratory Workers" CDC, 1998.

	<p>evaluations for attendees on the utility, applicability and overall usefulness of the course and to provide that information to DCP. This information will be used to determine future training needs and direction.</p>	<p>edu Food Safety, Product Development, Commercialization, Food Science Outreach Education. The Kinchla Research group focuses on applied research and food safety education to support the food industry. This research team supports development research from concept to commercialization to address technical challenges and deliver against product/business needs from farm to fork. In addition, our groups identifies and provides educational outreach opportunities and create educational programs that address Food Science needs through short courses, on-line training and other outreach venues.</p>
<p>Baseline Baseline:</p>	<p>Pre and post surveys will be designed and conducted by the training provider to evaluate the state of food safety knowledge of attendee's pre and post training.</p>	<p>None of the participants had prior commercial canning experience though some were experienced home canners. The results are all indicated above related to the survey above.</p>
<p>Target:</p>	<p>An 85% increase in knowledge is expected.</p>	<p>There was 100% increase on the knowledge related to commercial canning by the participants.</p>

Beneficiaries

The beneficiaries of this program include:

1. Small farms attempting to improve their economic situation by capturing more of the income from value added products produced from specialty crops. Value added production can enhance the profitability and economic viability of farms in Connecticut where land prices, labor costs, energy costs and the growing season can have significant detrimental impact on those parameters¹³. Value added overall in the Northeast is twice the national average per farm. Average farm size according to the 2012 Agricultural Census is 73 acres¹⁴, median size though

¹³ Northeast Sustainable Agriculture Working Group. "A Northeast Farm Bill Agenda: Priorities for the 2012 Farm Bill." May 2012

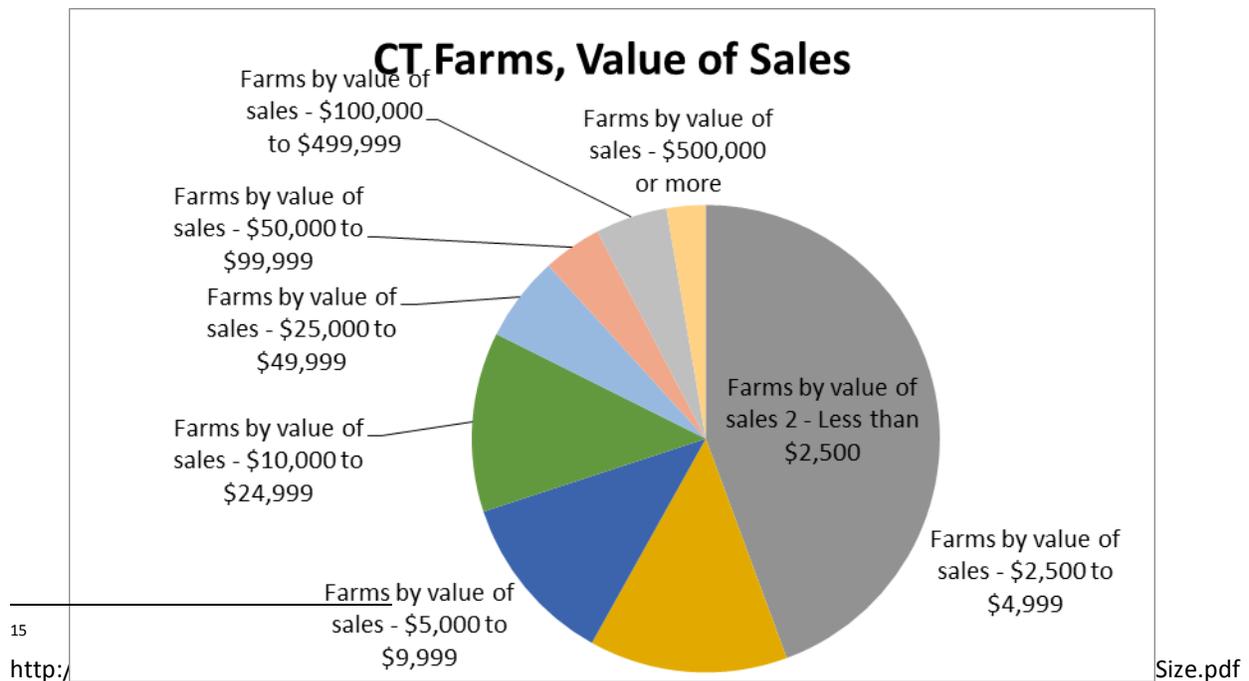
¹⁴ http://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Connecticut/cp99009.pdf

has been reported in 2002 and 2007 to be smaller at 27 acres¹⁵. Almost 75% of farms in Connecticut are 50 acres or less, see Table 1, below.

Given the small size as might be expected income for most farms in Connecticut is reported to be fairly low, see Table 2 below. Value-added products therefore have the potential to increase the profitability of such farms with a concurrent positive economic impact. Out of the total farms identified in the Agricultural Census, 5, 977¹⁶ farms, 952 are engaged in growing vegetables, melons, sweet potatoes and potatoes, with an additional 556 farms engages in farming fruit trees, nuts and berries, therefore potentially 1,508 farms or 25% of the total farms could benefit from the sale of value added product.

Table 2. 2012 Connecticut Agricultural Census – Farms by income

Farms by value of sales - Less than \$2,500	2652
Farms by value of sales - \$2,500 to \$4,999	820
Farms by value of sales - \$5,000 to \$9,999	709
Farms by value of sales - \$10,000 to \$24,999	743
Farms by value of sales - \$25,000 to \$49,999	352
Farms by value of sales - \$50,000 to \$99,999	243
Farms by value of sales - \$100,000 to \$499,999	297
Farms by value of sales - \$500,000 or more	161



¹⁵

<http://>

¹⁶ 2012 Agricultural Census Publications, Ranking of market value of ag products sold.

2. Farmland preservation efforts and those trying to preserve agricultural land by improving the profitability of small farm, which are the largest growing farmland sector in Connecticut, see Table 3, below. Capturing more of the secondary profits from processors has the potential to significantly add to a farm's economic viability. This also enables farms to use specialty crops that may not meet grade standards but are otherwise wholesome, reducing waste costs.
3. Consumers, by promoting greater consumption of locally produced specialty crops throughout the year through the production of preserved products. Consumers also benefit by the creation of a supply buffer in the event of a transportation disruption due to an unforeseen event.
4. Environmentalist and those concerned about climate change by reducing transport fuel use through shorter chains of supply and reduced consumption of fossil fuels.

However, the positive benefits can only be achieved through the production of safe and sanitary products. If outbreaks occur the related costs can be substantial and the damage to brand and image can be irreparable¹⁷

Lessons Learned

The full allocation was not spent; this was due both to internal and external factors. The stated goal however was with the scope of the project reduced. There were a variety of reasons related to this:

- This was new type of training, getting the necessary approvals through the state system was difficult and this delayed us at the start of the project.
- Timing. This after the issues with procurement generated the most difficulties related to providing additional courses and spending the complete amount allocated. There are at best maybe 2 or three months, December, January and February when it is possible to do this course where attendance is sufficient to offset the cost of instruction for the target audience. Difficulties with work schedules make it almost impossible to avoid farm related conflicts due to planting, harvesting, value-added sales or farm maintenance. We tried to offer the course in the Spring and Fall and while we had interest, the interest was not sufficient to attract enough attendees to make the provision of the BPCS course worthwhile.

¹⁷ <http://www.restaurant.org/Manage-My-Restaurant/Food-Nutrition/Food-Safety/A-high-price-to-pay-Costs-of-foodborne-illness>

Other lessons learned.

- Existing instructional materials were developed by the commercial food industry and one size fits all may not be appropriate. Comments received indicated a frustration with the time allocated to certain topics (the agenda though is specified by the CFR's). Most of the requirements enacted for acidified, shelf-stable canned products were enacted in reaction to large botulism outbreaks in the 70's¹⁸. Risks remain for small producers but there appears to be a need for materials developed tailored to such producers, both classroom and hands-on exercises.

Projects in general can be difficult to navigate through the State contracting process. This is amplified when there is a new project.

¹⁸ <http://thermalprocesstech.net/news/news3/michigan-history:-59-fall-ill-in-botulism-outbreak>

Additional Information

Better Process Control School
Acidified Foods
Proposed Syllabus
December 10, 11 2013
Windsor, Connecticut

Schedule	Chapter	Topic/Description
DAY 1:		
8:00AM-8:30 AM		Registration
8:30 AM -9:00 AM		Introduction & Federal Regulation for low acid canned foods
9:00-11:30AM	2	Microbiology of Thermally Processed Foods EXAM
11:30AM-12:30PM	3	Principles of Acidified Foods
12:30PM-1:15PM		Lunch
1:15PM-1:45PM		EXAM - Principles of Acidified Foods
1:45PM-3:15	4	Principles of Thermal Processing EXAM
3:15-4:45PM	5	Principles of Food Plant Sanitation EXAM
DAY 2:		
8:00AM-9:30 AM	6	Food Container Handling EXAM
9:30-11:00AM	7	Records and Recordkeeping EXAM
11AM-12:15PM	8	Equipment, Instrumentation, and Operation for Thermal Processing Systems
12:15PM-1:00PM		Lunch
1:00PM-1:30PM		Equipment, Instrumentation, and Operation for Thermal Processing Systems EXAM
1:30PM - 3:30PM	16	Closures for Glass Containers EXAM
3:30PM - 3:45PM		Break
3:45PM - 4:15PM		Course Evaluation

Attendee list

FirstName	LastName	Email	Farm
Susan W.	Accetura	ginny@lostacres.com	Lost Acres Orchard
Jennifer	Bass	jb.dron@gmail.com	Bass Farm
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Steven D, R.S.	Yenco,	syenco@crahd.net	CT River Area HD* (observer-not enrolled)