



**FY2012
Specialty Crop Block Grant Program
Final Report – Agreement #12-25-B-1484
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Background:	FY2012 Pennsylvania Department of Agriculture Specialty Crop Block Grant Summary
	<p>In 2012, the Pennsylvania Department of Agriculture (PDA) was awarded \$1,029,172 to promote the Specialty Crop industry throughout the state. Affirmative steps were taken to conduct state outreach to socially disadvantaged farmers and beginning farmers of specialty crops by PDA. Potential applicants were targeted through the Penn State University county extension offices, state and local associations, and the various USDA offices, to include FSA, NASS, RMA, USDA-RD and PDA economic development programs. The methods used to reach the targeted agricultural community included: press releases (300 PDA outlets, PR newswire service via the Governor’s Office) being sent to all above outlets, as well as, eight trade journals targeting producers throughout Pennsylvania, the state Agricultural Newsletter and other community newspapers. Presentation of grant round was included in the PA Fruit & Vegetable newsletter, mailings, and quarterly meeting.</p> <p>PDA received a total of 34 Specialty Crop Block grant applications. The grant applications were reviewed and prepared for presentation to the appointed Specialty Crop Advisory Board. Board members were invited based on their professional resumes and ability to provide impartiality. A total of 21 projects were awarded funding. The projects included marketing and promotion, education, research and production.</p> <p>The grant applications were reviewed and prepared for presentation to the appointed specialty crop advisory board. The ten (10) member board is composed of eight (8) men and two (2) women representing a variety of areas within the specialty crop industry. The creation of the Specialty Crop Block Grant Board serves to satisfy the USDA-AMS program requirements of transparency, impartial review and oversight. The board represents expertise in production agriculture, distribution, retail, marketing, research, nutrition, and education. Each member represents a level within the specialty crop industry necessary for impacting the availability, consumption and future policy of the industry. The board members were invited based on their professional resumes and ability to provide impartiality.</p> <p>Recently, Pennsylvania Department of Agriculture received the summary results from the 2012 United States Department Agriculture’s National Ag Statistical Service (USDA-NASS) 2012 Census. The Ag census is conducted every five years. Results from the 2012 census indicated significant under-coverage of small farms. Methodological changes, extensive list building, and partnering with community based organizations enabled USDA-NASS to more accurately account for small farms in 2012. The USDA farm definition is all farms that produce or sell, or normally produce or sell, \$1,000 in agricultural products. USDA-NASS made extraordinary efforts to outreach to small and minority-operated farms and ranches. Census data was adjusted for non-response and for under-coverage using statistical methodology to provide the most accurate numbers possible. According to the 2012 Ag Census, Pennsylvania generated \$394.6 billion in Ag products sales vs. \$97 billion in 2007, a 33 percent increase in 5 years. The Preliminary 2014 Census data show the following key trends for Pennsylvania:</p> <ul style="list-style-type: none"> • The land in farms in Pennsylvania showed a reduction from 2007 census, declining from 7.8 million acres to 7.7 million acres. • The number of farms was also down from 63,162 in 2007 to 59,302 in 2012. • The average age of a Pennsylvania farmer was 56.12 years in 2012, and increase from 55.2 in 2007. • The market value of agricultural products raised and sold from Pennsylvania was 7.4 billion dollars in 2012, a 27 percent increase from 2007. • In 2012 there were 8,460 operations in Pennsylvania that reported having a woman as the principle operator, with 4,252 of them listing farming as their primary operation.

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	<p>PDA considered the workshop findings along with input from various commodity boards and Bureau Directors to determine Pennsylvania Department of Agriculture’s prioritized list, which is as followings: 1) Market Development 2) Technology and Innovative 3) Food Safety 4) Nutrition knowledge and consumption 5)Research.</p> <p>PDA publicized a Request for Proposals (RFP) following the suggested ‘best practices’ protocol provided by USDA-AMS. Two steps were involved in the state department’s solicitation for applications. The RFP process included a general application to provide a method for screening potential applicants for eligibility. The formal RFP process was announced through press releases, newsletters and homepage link. The process drew 90 inquiries over a period of 12 weeks; resulting in twenty-one (21) being awarded for a total dollar amount of \$1,027,509.84. All applicants were encouraged to work with partners, consider multi-state cooperation and consolidate efforts for maximization of federal resources.</p> <p>Results from the peer review were made available for applicants to insure transparency, while maintaining review panel member confidentiality. Realizing the diverse agriculture in the state, twenty-one (21) projects have been selected; representing importance of commodity ranking in farm gate sales, acreage, and ability to deliver measurable outcomes for the pre-determined specialty crop needs in the state.</p>
Project Title:	Developing Production Budget for Eastern Table Grapes, Project 1
Project Summary:	<p>Table grape plantings have been installed on vertical cordon trellis systems at Beechwood Orchards, Biglerville and the Penn State Fruit Research Laboratory, Biglerville (FREC) in April 2007. The plants were placed on 6’ in row spacing with the 12’ spacing between the rows. The plants have been irrigated and managed using the same practices (weed control, insect and disease control, etc.) that are used in nearby wine grape plantings. Vines have been pruned and trained and began bearing fruit in 2009.</p> <p>In 2012, we will continue the differential pest management program and evaluate the vines and fruit for insects and diseases. As each variety ripens, yield data will be collected along with dates of harvest, weight of harvested clusters, and average berry size from a random sample from each lot. The agent will work closely with the research farm staff and Lynn Kime, Economist, during the harvest phase in order to generate a consistent data set. Fruit harvested in the trial will be used for consumer and grower tastings and appearance evaluations. These results coupled with past yield records were used to develop grower-friendly production budgets. These budgets along with specific recommendations will be used to create a new publication in the Penn State College of Agriculture, Alternative Agriculture Series “Eastern Table Grapes”. This publication is scheduled for release by June 2015. The online version of this publication is interactive, so allows growers to customize their own budgets within the standard format.</p> <p>By making accurate production budgets and related technical information available to potential table grape growers for the first time, this project has the potential to:</p> <ol style="list-style-type: none"> 1) Increase the diversity of Pennsylvania and Mid-Atlantic-grown horticulture products by adding table grapes to growers’ retinue. 2) Improve long-term grower profitability through sustainable diversification into table grapes. 3) Allow growers to enter into table grape production and marketing with a complete understanding of the risks and potentials.
Project Approach:	As the two vineyards used to collect production data were both established as part of ongoing projects created by grants from both the PA Dept of Agriculture and PA Vegetable Marketing Research Program, this phase of this program was to utilize data from 2013 and prior years to create enterprise budgets,

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	<p>establishment budgets and gross return tables based on typical yields experienced during the program timeline (2007 through 2013). Input costs both originally and adjusted for inflation were used for all input costs. In addition, growers that market Eastern Table Grapes were surveyed in order to determine typical sale prices to create the price sensitivity tables.</p> <p>Lynn Kime, Agricultural Economist took the lead in creating the spreadsheets that were used for data collection and in creating the final budgets attached at the end of this report. Steve Bogash, Horticulture Educator and Principal Investigator (PI), assisted in data collection, vineyard maintenance, and created the text for the Agriculture Alternatives publication that will be published by June 2015 “Eastern Table Grapes”. Certain sections are missing from the attached version as these are ‘boiler plate’ and will be inserted during the final publication process. In addition, the risk management section directly relates to the most recent farm bill, so will require some adjustment from that used in earlier, similar publications.</p>
<p>Goals and Outcomes Achieved:</p>	<p>The sole goal of this project was the creation of both static and interactive budgets intended for growers that are seeking to establish or expand plantings of Eastern Table Grapes. This goal has been achieved and is attached to this report. In order to make this usable and obtainable by growers, the PI elected to have these budgets and the related introductory materials published as one of the Penn State College of Agriculture, Agriculture Alternatives Series http://extension.psu.edu/business/ag-alternatives. This series and the many publications and budgets within are notable nationally as a resource for new enterprise development. Part of what makes these publications work so well is the regularity with which they are revised. The PI has participated in both developing and revising many publications in the Agriculture Alternatives series. Some titles developed or revised by the PI: Cut Flower Production, Cantaloupe Production, Watermelon Production, Cucumber Production, Garlic Production, Pepper Production, Potato Production, and Tomato Production.</p>
<p>Beneficiaries:</p>	<p>The primary beneficiaries of this project are growers seeking to establish new or expand existing table grape vineyards in Pennsylvania and the Mid-Atlantic. Due to the many and expensive inputs required to create a new vineyard and the 3-5 years required from planning to installation to first harvest, having this information up front of a project allows growers to invest wisely and / or borrow sufficient funds to be successful.</p> <p>The cooperating grower (Beechwood Orchards) found that growing and marketing table grapes was so successful that they have substantially expanded the original ½ acre vineyard that was created under the original project funding. Several other growers have also installed table grape vineyards with others in the planning stages. The release of the final publication no later than June 2015 should create substantial additional buzz and interest in this opportunity.</p>
<p>Lessons Learned:</p>	<p>As this final step in examining table grape production and marketing in the Mid-Atlantic, there were no truly unexpected lessons learned during the course of creating these budgets. Although, it was interesting to note that conventional wisdom has long been that when all of the costs of creating a vineyard were fairly represented that it costs between \$8 and 10,000 per acre. Inflation has moved that number to just over \$12,000 per acre due to increasing cost per vine and trellis costs.</p>
<p>Contact Person:</p>	<p>Steve Bogash Horticulture Educator Penn State Extension Franklin County 181 Franklin Farm Lane Chambersburg, PA 17202 Phone: 717-263-9226 x 230 Email: smb13@psu.edu</p>

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	Web: extension.psu.edu																																																
Additional Information	Table Grape Key																																																
	A)	Marquis: Very large, seedless, mild flavored, yellow-green berries on moderately vigorous vines. Looks great in quarts. NY 1996																																															
	B)	Reliance: Very tender, mild flavored, pink when ripe fruit in tight bunches. One of the best looking bunch grapes out of the Eastern types. AK 1982																																															
	C)	Vanessa: Red, seedless, mild and fruity with a very firm texture that stores under refrigeration well. NY / HRIO Canada 1952																																															
	D)	Steuben: Large, blue-black, low cracking slipskin fruit with a nice tang. Good for both table and wine. NY 1947																																															
	E)	Einset: Very hardy, seedless red fruit. Excellent farmers market product. NY 1969																																															
	F)	Saturn: Red, seedless, not especially flavorful. Will probably graft over to alternative varieties. AK 1987																																															
	G)	Himrod: Probably due to the long time this grape has been around, but Himrod is the most widely known of the Eastern Table Grapes. Smallish, seedless, white to light green berries in small to medium clusters. Truly an excellent flavor and texture. Some work has been done using GA to improve the fruit size and tighten up bunches. NY 1952																																															
	H)	Mars: Seedless, blue, slipskin smallish, excellent eating grapes in very tight bunches. AK 1984																																															
	I)	Glenora: Medium sized, blue-black berries with a mild flavor. NY 1952																																															
	J)	Jupiter: Large, bluish, medium clusters on vigorous vines. A favorite at Adams County, PA markets. AK 1998																																															
	K)	Seneca: Very poor initial establishment, never replaced.																																															
	L)	Venus: Blue-black, slipskin berry with a mild Labrusca-like flavor. Excellent clusters. AK 1977																																															
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Project Title:	Promotion of Potato Production in PA, Project 3
Project Summary:	<p>Although the potato production is significant in Pennsylvania, the acreage of potatoes has been declining for over twenty years. To address the need for Pennsylvania potato industry to survive and increase, we proposed to conduct potato field research to develop best field management under Pennsylvania conditions and provide up-to-date potato management and production education to growers. The overall goal of this project was to increase potato production in Pennsylvania by selection and introduction of improved potato varieties and new cultural management. This project was a partnership between The Pennsylvania State University potato program and The Pennsylvania Co-Operative Potato Growers, Inc. The specific objectives of this project were: 1) explore with growers and non-growers the possibility of growing potatoes; 2) set up demonstrations trials in strategic locations to feature potato varieties that could provide high quality yield; 3) evaluate attractive, high yielding, disease-resistant, table-stock, processing and specialty-type potato varieties that can be employed by Pennsylvania potato producers; 4) reduce the impact of economically important potato pests in Pennsylvania by adoption of resistant potato varieties and by using green manure; 5) facilitate commercial adoption of improved new varieties by coordinating initial commercial trials and by developing management recommendations; and 6) provide updated information on potato varieties and field management to Pennsylvania potato producers especially new potato farmers. In 2013, we evaluated 212 potato varieties/breeding clones in Center County, 36 in Lehigh County and 40 in Erie County for table-stock, processing and specialty-type qualities. We evaluated 787, 32, 370 and 33 potato varieties/advanced breeding</p>

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	<p>clones for late blight, early blight, common scab and powdery scab disease resistance respectively. We evaluated the effect of green manure on potato yield and diseases. We had commercial and demonstration field potato trials in three counties in Pennsylvania. Potato varieties that have qualities for either processing or table stock under Pennsylvania field conditions were identified. The results of all our research trials were delivered to Pennsylvania potato growers and industry via printed research reports, presentations at meetings and personal contacts. Varieties suitable for chipping, French fries and table tock were recommended respectively for Pennsylvania potato growers and industry. The commercial and demonstration field potato trials were shown to growers.</p>
<p>Project Approach :</p>	<p>Objective 1: Explore with growers and non-growers the possibility of growing potatoes. (Robert Leiby, Roger Springer, David Slagle, PA Co-Op; Mike Peck, Xinshun Qu, Chad Moore, Penn State)</p> <p>Activities: We had following personal contacts and meetings with Pennsylvania potato growers and industry to accomplish this objective.</p> <p>October 9, 2012, Western PA educational meeting for Potato Growers, New Wilmington, PA.</p> <p>November 6, 2012, Board of Directors Lehigh Valley Potato Growers Association met to discuss potato plans for eastern PA Potato Day Educational Program.</p> <p>December 4, 2012, met with Jim Stauffer in Lancaster County to discuss expansion of his potato acres.</p> <p>January 5 thru 13, 2013, PA Farm Show; Pennsylvania grown French fries, baked potatoes and potato donuts available at PA Co-Operative Potato Growers, Inc. booth.</p> <p>January 30, 2013, Mid-Atlantic Fruit and Vegetable Conference Hershey, PA Two Presentations: <i>What Potato Growers Need to Know About Potato Seed</i>, and <i>New Directions in the PA Co-Operative Potato Growers, Inc.</i></p> <p>February 12, 2013, Meeting with Nate Richards, a new potato grower Catawissa, PA on how to get started as a potato grower.</p> <p>March 6, 2013, Eastern PA Potato Day, Schnecksville PA. Educational meeting for potato growers.</p> <p>May 9, 2013, PA Potato Growers Blog opens with first post.</p> <p>April 2013, Variety Demonstration Potato trials planted in Lehigh, Erie, and Centre Counties.</p> <p>May 21, 2013, PA Potato Field Scouting Programs begins; PA Co-Op Potato Growers, Inc. Crop Consultants provide weekly scouting of potato fields through mid-September 2013.</p> <p>May 18, 2013, Farm to Table Program, Growing Potatoes Exhibit, Fox Chase School, Philadelphia, PA.</p> <p>July 3, 2013, Lehigh Potato Grower Board of Directors visits Potato Demonstration and germplasm trial at Geiger Family Farm, Lehigh Co PA.</p> <p>August 13, 14, 15, 2013, Ag Progress Days. Potato Tent features variety demonstration trial and information on</p>

how to grow potatoes.

August 21, 2013, Twilight Potato Field meeting at Lehigh County Germplasm and Demonstration trial.

August 28, 2013, Potato Field meeting at Erie County Potato Germplasm and Demonstration trial.

January 2014, Mid Atlantic Vegetable Conference in Hershey. Presentations on Potato Varieties for Pennsylvania.

March 6, 2014, Conducted Potato Day program in Schnecksville, 60 attended.

July 3, 2014, Field meeting with Lehigh Valley Potato Growers Board of Directors to review progress on varieties.

July 1, 2014, potato variety presentation at Landisville Research Farm (field demo plot has 30 varieties) at Field Day, 40 attended. Purpose was to show Lancaster vegetable growers potato varieties that would be suitable for their markets.

August 12, 13, 14, 2014, Ag Progress Days; Potato Tent exhibit featuring 28 varieties and information about potato production, over 800 attended.

September 3, 2014, Presented two lectures “Spray Adjuvants” and “Potato Pest Updates for the 2014 Growing Season” at Erie Field Meeting, Attendance 6.

September 2014. PCPG potato exhibit at Long Acres Farm. 27 different potato varieties on display for the public to learn about potatoes. 250 attendance.

September 8, 2014, Twilight Potato Growers Meeting in Northampton Co. Garry Hunsicker Farm, “Potato Pest Management Update” and “Potato Varieties Field trial Results”. 38 people attended.

Significant results, accomplishments, conclusions and recommendations:

Through these meetings and personal contacts, we provided growers general and updated knowledge about growing potatoes in Pennsylvania. Many potato growers showed interested in new information about potato varieties and disease management. Some non-potato growers showed interests in growing potatoes. Several participants showed interests in growing potatoes in their home gardens.

Objective 2: Set up several demonstrations trials in strategic locations to feature potato varieties that could provide high quality yield. (Mike Peck, Xinshun Qu, Penn State; Robert Leiby, Roger Springer, PA Co-Op)

Activities:

We had many different potato varieties at our demonstration trials spread out for growers to look at and ask questions. At the Rock Springs location we planted a demonstration trial in May 2013 with 30 varieties including 11 round whites with a few yellow flesh, 11 red-skinned (a few purple skinned), 5 russet or long white types and 3 specialty clones. This trial was available to visitors at Ag Progress Days on 13, 14, 15 August 2013. A demonstration trial with 24 varieties was planted in Erie Co. in May 2013 and was shown to growers during Potato Field meeting at Erie County on 28 August 2013. A demonstration trial with 24 varieties was planted in Lehigh Co. in May 2013 and was shown to growers during Twilight Potato Field meeting at Lehigh County on 21 August 2013.

Significant results, accomplishments, conclusions and recommendations:

Many growers showed up to these demonstration trials. For example, about 1000 visitors showed up to our potato demonstration trial in Rock Springs during Ag Progress Days. These events were opportunities for growers to view on-farm potato variety trials and receive updates from potato specialists. This will help them to select potato varieties to grow in the future.

Objective 3: Evaluate attractive, high yielding, disease-resistant, table-stock, processing and specialty-type potato varieties that can be employed by Pennsylvania potato producers. (Mike Peck, Chad Moore, Xinshun Qu, Penn State; Robert Leiby, PA Co-Op)

Activities:

Advanced clones/varieties for chip, French fry, and round white or red or specialty table stock were evaluated in four major potato growing regions of Pennsylvania in May 2013: Lehigh Co., Erie Co., Cambria Co., and Rock Springs, Centre Co. At the Rock Springs location the germplasm trial was planted with a total of 212 varieties including 132 round whites with a few yellow flesh, 28 red-skinned (a few purple skinned), 50 russet or long white types and 3 specialty clones. At the Lehigh Co. location we planted a germplasm trial with 36 varieties including round whites with a few yellow flesh, red-skinned (a few purple skinned) and russet or long white types. At the Erie Co. location we planted a germplasm trial with 40 varieties including round whites with a few yellow flesh, red-skinned (a few purple skinned) and russet or long white types.

Significant results, accomplishments, conclusions and recommendations:

We selected 38, 9 and 10 advanced clones/varieties from Rock Spring trial, Lehigh Co. trial and Erie Co trial, respectively for short term storage chipping. We selected 38, 6 and 7 advanced clones/varieties from Rock Spring trial, Lehigh Co. trial and Erie Co trial, respectively for chipping after long term storage at 45F. We selected 15, 2 and 2 advanced clones/varieties from Rock Spring trial, Lehigh Co. trial and Erie Co trial, respectively for French Fry. 109 advanced clones/varieties were selected for table stock. Top advanced clones/varieties were recommended to potato growers.

Objective 4: Reduce the impact of economically important potato pests in Pennsylvania by adoption of resistant potato varieties and by using green manure. (Xinshun Qu, Mike Peck, Chad Moore, Penn State)

Activities:

In the summer of 2013, we evaluated 787, 32 and 370 potato varieties/advanced breeding clones for late blight, early blight and common scab disease resistance, respectively at the Russell E. Larson Agricultural Research Center at Rock Springs, PA. We also evaluated 33 potato varieties/advanced breeding clones for powdery scab disease resistance in Potter Co., PA. In another trial to see how the green manure affects the potato yield and diseases, mustard Caliente 199 was grown in a field at the Russell E. Larson Agricultural Research Center at Rock Springs, PA in July 2012 and then was incorporated into soils in spring 2013. Five common potato varieties in Pennsylvania (Snowden, Reba, Lehigh, Dark Red Norland, Atlantic and Russet Norkotah) were grown in the field in May 2013. The effects of green manure on yield and soil-borne diseases were evaluated after harvest.

Significant results, accomplishments, conclusions and recommendations:

Sixteen potato cultivars/lines were selected as resistant to moderately resistant to late blight. Seven cultivars/lines were selected as resistant to moderately resistant to early blight. Potato cultivars/lines resistant to common scab and powdery scab were also selected, respectively. The green manure affects the potato yield and diseases were determined.

Objective 5: Facilitate commercial adoption of improved new varieties by coordinating initial commercial trials

	<p>and by developing management recommendations. (Mike Peck, Xinshun Qu, Penn State; Robert Leiby, PA Co-Op)</p> <p>Activities: Four advanced potato clones/varieties resulted from our previous research trials were placed in initial commercial trials in May 2013. These four advanced clones/varieties were: AF3001-6 (a long white variety now named Easton for processing), AF0338-17 (a round white now named Sebec for out of field chipping or tablestock), Challenger (oblong shape for processing) and Nicolet (a chipper from long storage). About 300 lbs of each variety were planted in three locations at Schuylkill Co., Erie Co., and Rock Springs, Centre Co. respectively. The trials were harvested in October 2013. We evaluated the tubers for yield, processing and storage qualities after harvest.</p> <p>Significant results, accomplishments, conclusions and recommendations: Prior to growing promising potato clones in Pennsylvania, initial demonstration trials were conducted on commercial farms. These initial commercial-scale trials helped identify production problems that might occur on commercial farms under Pennsylvania field conditions. After harvest, we met meet with growers to share results of the trials. Management recommendations were developed for these advanced clones entering commercial trials.</p> <p>Objective 6: Provide updated information on potato varieties and field management to Pennsylvania potato producers especially new potato farmers. (Xinshun Qu, Barbara Christ, Mike Peck, Chad Moore, Penn State; Robert Leiby, Roger Springer, David Slagle, PA Co-Op)</p> <p>Activities: We printed a summarized report of the results of our 2013 field trials (Pennsylvania Potato Research Report 2013, 35 pp). The report was mailed to Pennsylvania potato growers and industry. We also presented our research results via meetings and personal contacts. The most advanced clones/varieties resulted from this year’s research trials will be placed in demonstration and initial commercial trials in 2014 which will be shown to potato growers.</p> <p>Significant results, accomplishments, conclusions and recommendations: In our report, we provided recommendations to growers about appropriate varieties to grow for different purposes such as table stock, chipping or French fries under Pennsylvania conditions.</p>
<p>Goals and Outcomes Achieved:</p>	<p>In this project, we identified potato varieties that have qualities for either processing or table stock under Pennsylvania field conditions. Varieties suitable for chipping, French fries and table tock were recommended respectively for Pennsylvania potato growers and industry.</p> <p>The overall goal of this project was to increase potato production in Pennsylvania by selection and introduction of improved potato varieties and new cultural management. According to USDA Potato 2013 Summary (http://www.usda.gov/nass/PUBS/TODAYRPT/pots0914.pdf), growers in Pennsylvania planted 6,700 acres of potatoes and average yield per acre was 290 cwt in 2013. The planted acre and yield data of 2014 will be available next year. Since all field trials in this project were conducted in 2013 and the results of the trials were delivered to Pennsylvania growers and industry in early 2014, the impact of this project on potato production in Pennsylvania will be seen in the years after 2013.</p>
<p>Beneficiaries:</p>	<p>All Pennsylvania potato growers and industry are benefiting from this project. The results of our field potato germplasm and disease evaluation trials and commercial trials provide growers information on yield, internal</p>

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	<p>and external defects, specific gravity, overall appearance, disease resistance, processing quality of different potato varieties. Based on our information, growers can chose appropriate varieties to grow for different purposes such as table stock, chipping or French fries under Pennsylvania conditions. We also made presentations to grower groups and shared information to individual growers and groups through a range of activities. As a result, growers learned about new potato management information and promising new varieties in the program. We worked with these growers to facilitate initial commercial-scale trials. Some non-potato growers showed interests in growing potatoes.</p>
<p>Lessons Learned:</p>	<p>Environmental conditions varied greatly from year to year. In this project we conducted field trials for one year in 2013. Several years are needed for field potato variety evaluation and selection. Also new potato varieties and breeding lines come out each year from several US potato breeding programs. We will continue our potato germplasm and disease evaluation trials after this project.</p>
<p>Contact Person:</p>	<p>Xinshun Qu Department of Plant Pathology and Environmental Microbiology 814-867-4928 xsq1@psu.edu</p>
<p>Additional Information:</p>	<p>Publications:</p> <p>Haynes KG, Gergela DM, Qu XS, Peck MW, Yencho GC, Clough ME, Henninger MR, Halseth DE, Porter GA, Ocaya PC, Zotarelli L, Menasha SR, Christ BJ, Wanner LA, Hutchinson CM. 2014. Elkton: A new potato variety with resistance to internal heat necrosis and hollow heart and suitable for chipping directly from the field in the southern United States. <i>American Journal of Potato Research</i> 91:269-276.</p> <p>Qu XS, Christ BJ. 2014. Field evaluation of potato cultivars and breeding lines for resistance to late blight in Pennsylvania, 2013. <i>Plant Disease Management Reports</i> 8: V186.</p> <p>Qu XS, Christ BJ. 2014. Field evaluation of potato cultivars and breeding lines for resistance to early blight in Pennsylvania, 2013. <i>Plant Disease Management Reports</i> 8: V187.</p> <p>Qu XS, Peck MW, Christ BJ. 2014. Evaluation of foliar fungicides for control of potato late blight in Pennsylvania, 2013. <i>Plant Disease Management Reports</i> 8: V188.</p> <p>Qu XS, Christ BJ. 2014. Field evaluation of potato cultivars and breeding lines for resistance to powdery scab in Pennsylvania, 2013. <i>Plant Disease Management Reports</i> 8: V189.</p> <p>Qu XS, Christ BJ. 2014. Pennsylvania Potato Research Report 2013. 35 pp.</p> <p>Photos:</p> <p>1) A photo shows our potato demonstration trial in Rock Springs, PA in August 2013.</p>



2) A newly released potato variety Easton was shown in our commercial trial in 2013.



Project Title:	Understanding Peach Purchasing Behavior and Preferences, Project 6
Project Summary:	<p>Peach consumption in the U.S. has remained fairly consistent since the early 1980's but declined to 8.8 pounds per person in 2008 (Brunke et al. 2010). One approach to increasing peach consumption would be to better understand what characteristics consumers' desire when purchasing this fruit and what marketing strategies could increase purchasing frequency and quantity. Aside from determining how consumers select peaches and what characteristics denote ripeness and what promotional activities could favorably impact fresh peach consumption, it is worth investigating what value-added peach products would have the greatest appeal.</p> <p>Brunke, H., M. Chang, D. Huntrods. 2010. Peach profile. Ag. Marketing Center. Iowa State University. Accessed 10 April 2012. http://www.agmrc.org/commodities__products/fruits/peach_profile.cfm</p>
Project Approach:	<p><i>FOCUS GROUP SESSION</i></p> <p>On the 10th of April 2013, an in-person focus group session was held at the Food Science Building on the University Park Campus of The Pennsylvania State University. Eight consumers were recruited for the session, two of which were males and six were females, who were responsible for at least half of the grocery shopping for the household, and both ate and purchased peaches during the months of July though September. The purpose of the session was to discuss predetermined issues that would be further investigated in both the Internet survey and the sensory evaluation and determine what additional topics needed to be considered for these studies.</p> <p><i>INTERNET SURVEY</i></p> <p>Data were collected through a 15-min Internet survey (19-25 June 2013) administered to 1,645 consumers, 1,290 of which met the criteria for the survey, and 1,093 completed the survey. Screener criteria included:</p> <ul style="list-style-type: none"> • age 18 and older, • resided in the mid-Atlantic (Maryland, New Jersey, New York, Pennsylvania, Virginia, and Washington, D.C.) region, • were not a member of the tree fruit industry or trade (e.g. retailer, distributor, peach grower), • were responsible for at least half of the grocery shopping for the household, and • purchased and at fresh peaches during the months of July through September. <p>Participants were randomly selected from a panel of participants managed by Survey Sampling International, LLC (Shelton, CT) a provider of sampling solutions for survey research. Panelists received an electronic consent statement along with a link to the survey developed by researchers and approved by the Office of Research Protections at The Pennsylvania State University (University Park, PA). Upon completion of the survey, each participant received \$1.00 in compensation, administered by Survey Sampling International, LLC, for completing the survey. Survey questions were pre-tested and administered to a sample of 104 randomly selected Survey Sampling International, LLC panelists.</p> <p><i>SENSORY EVALUATION</i></p>

	<p>On the 7th of August 2013, a sensory test was held in the Sensory Evaluation Center on the University Park Campus of The Pennsylvania State University. One hundred peach consumers were recruited for the test. Participants consisted of faculty, staff, and students from the Penn State, University Park Campus. Before participating, participants were screened and all were responsible for at least half of the grocery shopping for the household, and both ate and purchased peaches at least once during the months of July through September.</p>																																										
<p>Goals and Outcomes Achieved:</p>	<p>A focus group session, Internet survey, and sensory evaluation were conducted in 2013 to investigate consumer peach consumption and to fulfill the following research objectives:</p> <ol style="list-style-type: none"> 1. Document peach consumer purchasing and consumption behaviors. Identify what barriers (real or perceived) prevent consumers from purchasing the quantity of fresh and value-added processed peaches they desire. 2. Investigate potential marketing promotions to increase fresh and processed peach awareness and purchasing. 3. Analyze data based on key questions to create segments or groups of consumers who are “likely buyers” and what motivates this behavior. <p>All objectives described in the funded proposal were met through the studies described in this final progress report. The following are results from both the Internet survey and the sensory evaluation.</p> <p><i>INTERNET SURVEY</i></p> <p><i>Demographics characteristics</i></p> <p>The most common responses to demographic questions for participants were: female (71.9%), no children in the household (62.8%), living in a three adult household (44.0%), age 45 to 54 (23.0%) and age 25 to 34 (21.6%), some college/technical school education (35.%), a household income between \$25,000 to \$49,999 (27.2%), followed by \$50,000 to \$99,999, and resided in Pennsylvania (57.3%) (Table 1).</p> <p>Table 1. Demographic characteristics (e.g., sex, age range, education level) for survey participants who resided in the mid-Atlantic metropolitan areas (n=1,093).</p> <table border="1" data-bbox="245 1423 1421 1927"> <thead> <tr> <th>Demographic variable</th> <th>Frequency</th> <th>Percent</th> </tr> </thead> <tbody> <tr> <td colspan="3">State of residence</td> </tr> <tr> <td>Maryland</td> <td>63</td> <td>5.8</td> </tr> <tr> <td>New Jersey</td> <td>162</td> <td>14.8</td> </tr> <tr> <td>New York</td> <td>134</td> <td>12.3</td> </tr> <tr> <td>Pennsylvania</td> <td>636</td> <td>57.3</td> </tr> <tr> <td>Virginia</td> <td>86</td> <td>7.9</td> </tr> <tr> <td>Washington, D.C.</td> <td>22</td> <td>2.0</td> </tr> <tr> <td colspan="3">Sex</td> </tr> <tr> <td>Female</td> <td>784</td> <td>71.9</td> </tr> <tr> <td>Male</td> <td>307</td> <td>28.1</td> </tr> <tr> <td colspan="3">Age category</td> </tr> <tr> <td>18 to 24</td> <td>89</td> <td>8.1</td> </tr> <tr> <td>25 to 34</td> <td>236</td> <td>21.6</td> </tr> </tbody> </table>	Demographic variable	Frequency	Percent	State of residence			Maryland	63	5.8	New Jersey	162	14.8	New York	134	12.3	Pennsylvania	636	57.3	Virginia	86	7.9	Washington, D.C.	22	2.0	Sex			Female	784	71.9	Male	307	28.1	Age category			18 to 24	89	8.1	25 to 34	236	21.6
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35 to 44	174	15.9
45 to 54	251	23.0
55 to 64	215	19.7
65 and older	128	11.7
Number of adults in the household:		
One, only the participant	212	19.4
Two adults	400	36.6
Three adults	481	44.0
Children in the household		
None	687	62.8
One	194	17.8
Two or more	211	19.4
Highest level of education completed		
Some high school and high school graduate	242	22.2
Some college/technical school and graduate	389	35.7
Bachelor's degree	315	28.9
Master's degree of higher	144	13.2
2012 Household income		
Less than \$25,999	175	16.1
\$25,000 to \$49,999	296	27.2
\$50,000 to \$75,999	276	25.3
\$76,000 to \$99,999	144	13.2
\$100,000 to \$150,000	138	12.7
Greater than \$150,000	60	5.5
Vegetarian status		
At least one person in the household is a vegetarian or vegan	83	7.6
No one is vegetarian or vegan	648	59.6
No one is vegetarian or vegan but household meat consumption has been reduced	356	32.8

Fresh peach purchases

Pertaining to how often all survey participants purchased fresh peaches for themselves and/or their households during the months of July through September, the most common response was "about once a week" (42.2%) followed by "two to three times a month" (27.0%). Participants also indicated how often they consumed fresh peaches during this period with 34.5% indicating they eat fresh peaches during the months of July through September "daily to a few times a week" with an additional 24.9% of participants indicating that they eat the fruit "about once a week). As to who eats the fresh peaches that are purchased for the household, 40.0% of participants indicated that only they do with 33.3% responding that they and another adult eat the peaches. Peaches are primarily purchased to eat fresh (98.3%) but 36.3% of participants use them "as an ingredient in recipes and/or to bake with," while less than 10% purchase fresh peaches to "can in jars for later use" (7.4%) or to "freeze for later use" (8.0%). Pertaining to the number of fresh peaches participants purchased during an average month, responses ranged from one to nine (29.9%), to 10 to 19 (27.7%), 20 to 29 (22.6%), and 30 or more (19.8%).

Related to what would encourage participants to purchase more fresh peaches than they typically do, they were asked to indicate whether purchasing would increase, decrease, or remain the same based on select scenarios. Percent responses for those who would be influenced to purchase more peaches are presented.

- Nutritional value of peach is stated (27.4% increase)
- Three to four peaches are prepackaged and sold in containers (22.8%)
- Six to eight peaches are prepackaged and sold in containers (23.8%)
- Information on how to store the peaches is present (35.3%)
- Information on how long peaches can be stored is present (40.0%)
- Family member or friend suggested the particular peach (41.6%)

Fresh peach characteristics that appealed to participants were:

- Large peaches: Peaches that are 2.5 inches and larger in diameter (appealed to 45.5% of participants)
- Peaches that are sweet (88.6%)
- Peaches with peels that are red over yellow (35.8%)
- Freestone variety of peaches (45.1%)
- Peaches that are slightly soft (65.3%)

Participants also responded to questions about their attitudes towards fresh peaches. A majority (72.1%) responded that fresh peaches were a planned purchase and that fresh peaches were among their family’s favorite fruit (86.3%). Just under half (48.4%) stated that when fresh peaches are available they reduce or stop buying other fresh fruit that they normally purchase. Pertaining to how they store the peaches after they purchase them, 60.1% store them at room temperature and 56.5% store them in the refrigerator (participants were allowed to select one option or both). Regardless of how they stored the peaches, 74.8% stated that they have never had an issue storing fresh peaches before eating or using them and 86.6% responded that they were able to eat most of the peaches they purchase before they are no longer desirable or “go bad.” As value-added processed products present additional opportunity for the industry, participants were asked to select the value-added peach products that they have purchased in the past and those that they would be interesting in purchasing (Table 2).

Table 2. Percent of participants (n=1,093) who have purchased selected peach based value-added products and interest in purchasing the product in the future.

Value-added peach product	Percent who previously purchased the product (%)	Percent who would be interested in purchasing (%)
Alcoholic beverages made with peaches (wine, hard cider, brandy,	38.4	56.1

etc.). Data for participants age 21 and older (n=1058)		
Ready to eat snacks (dried peach slices, peach chips, etc.)	60.9	78.0
Non-alcoholic peach beverages (juice, tea, etc.)	63.0	76.0
Peach smoothies and peach flavored smoothie mix	39.7	72.0
Baby food made with peaches	40.6	33.3
Peach preserves, jellies, jams, or butters	56.2	76.0
Frozen peaches, pie filling, or other frozen peach products	44.3	68.1
Canned or jarred peaches or slices	83.9	85.8
Peach vinegar	6.5	28.8
Peach fruit leather, fruit candies, or snack bars	32.2	56.1
Peach flavored oatmeal, toaster pastries, flavored cereal, or other breakfast foods	43.4	64.4
Peach flavored granola or cookies	22.1	59.2
Peach pastries, cakes, or other bakery items	55.3	77.3
Peach ice cream or other frozen desserts	56.0	78.0
Peach salad dressing, relish, salsa, barbecue sauce, dips, or other condiments	15.9	45.5

Participants were asked to indicate this interest in purchasing prepared foods and processing the items themselves by selecting, on a scale of 1 to 7 (1 = strongly disagree; 7 = strongly agree) their agreement with the two statements. Overall, agreement with the statement “I enjoy preparing fruits and/or vegetable for meals that I cook for myself and/or other household members” resulted in a mean of 5.73, which fell between “somewhat agree” and “agree.” When asked to indicate agreement with the statement: “Purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be cut, peeled, or processed prior to eating,” the mean was 3.56, which fell between “somewhat disagree” and “neither disagree nor agree.”

A majority of participants (74.5%) indicated that “whenever possible [they] purchase fruits and/or vegetables from the farmer who grew them or that are labeled locally-grown. When asked where they purchased fresh peaches, responses varied (participants were allowed to select more than one type of retailer) (Table 3).

Table 3. Source where participants shopped for foods and snacks and where they shopped for fresh peaches (n=1,093).

Retailer	Percent who purchased fresh peaches from the retailer (%)
Grocery store or supermarkets	70.9

Specialty food store	47.5
Mass/supercenters	40.7
Warehouse Club	35.3
Farmer’s market, farm stand, on-farm market or through a CSA subscription	66.5
Internet, catalog, or mail-order service	0.8
Natural food store	31.6
Dollar store	0.5

A variety of questions were presented to learn about participants’ use of social media and what they expected a food retailer to offer in terms of communicating via these tools. A majority of participants had a Facebook account (74.1%); however, only 25.9% used their account to connect with businesses. Account ownership for other tools (e.g., Twitter, Pinterest) were less than 50% and use to connect with businesses was even lower. Additionally, participants were asked to indicate which website components presented would appeal to them. The most appealing component was how to select fresh peaches (59.7% state this would appeal), followed by how to store fresh peaches (54.3%), recipes using fresh peaches (52.0%), responses to consumer questions and suggestions (37.2%), information that educates the participant on how and when peaches are grown (37.1%), and pictures of fresh peaches, peach products, and using peaches for decorative purposes (25.3%).

Segmentation variables

To define “who” is likely to be a “heavy user” and purchase peaches at a greater frequency, data was segmented based on several demographic variables, behaviors, and attitudes. Variables selected for the segmentation were:

- Sex
- Age range
- Income level
- Education level
- Number of adults in the household
- Number of children in the household
- Household’s vegetarian status
- Who, in the household, eats fresh peaches
- Peaches are among the household’s favorite fruit
- Participant stops purchasing other fruit they normally buy when fresh peaches are available
- Participant considers fresh peaches a planned purchase
- Frequency which participant buys fresh peaches during the months of July through September

- Frequency which participant eats fresh peaches during the months of July through September
- Agreement with the statement: Whenever possible the participant purchases fruit and/or vegetables from the farmer who grew them or that are labeled locally-grown
- Agreement with the statement: Purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating
- Agreement with the statement: Participant enjoys preparing fruits and/or vegetables for meals that they cook for themselves and/or other household members

The statistical analysis is extensive and only select data is presented in this progress report; however, all data tables are available for view as PDFs. Below is a sample of the data that has been analyzed and will be the basis for research reports and presentations delivered in the upcoming year.

Table 4. Segments of survey participants with the greatest percentage of participants who indicated that they eat fresh peaches “daily to a few times a week” during the months of July through September.

Segments with a greater percentage of participants who indicated that they eat fresh peaches “daily to a few times a week”	Their counterparts
Participants who agree that preparing fruits and/or vegetables for meals that they cook for the household	Those who disagree and “neither agree nor disagree” with this statement
Participants who both agree and disagree that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating	Those who “neither agree nor disagree” with the statement
Participants who, whenever possible, purchase produce from the farmer who grew them or that are labeled locally-grown	Those who do not agree with this statement
Participants residing in a household with two or more adults	Single-adult households and two person households
Households with one and two or more children	Households without children
Households with at least one vegetarian	Households where no one is a vegetarian
Households where the participant and one other member (child, adult, or both) also eats fresh peaches	Households where only the participant eats fresh peaches
Households where peaches are among their favorite fruits	Those who do not agree with this statement
Participants who stop purchasing other fresh fruits they normally buy when fresh peaches are available	Those who do not agree with this statement
Participants who consider fresh peaches a planned purchase	Those who do not
Participants who purchase fresh peaches daily to a few times a week during the months of July through September	Those who purchase less frequently

No statistical difference exhibited for the following segmentations:

- Sex

- Age range
- Income level
- Education level

Table 5. Consumer research segments with the greater percentage of participants who indicated that when fresh peaches are available the participant either reduces or stops buying fresh fruits that they normally purchase

Segments with a greater percentage of participants who are more likely to reduce or stop buying fresh fruits that they normally purchase when fresh peaches area available	Their counterparts
Participants with the following income: \$100,000 to \$150,000	Participants in other income categories
Participants with a bachelor’s and master’s or greater degree	Participants with a lower level of education
Participants who agree that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating	Those who disagree and “neither agree nor disagree” with the statement
Participants who, whenever possible, purchase produce from the farmer who grew them or that are labeled locally-grown	Those who do not agree with this statement
Households with at least one vegetarian and households where no one is a vegetarian but meat consumption has been reduced	Households where no one is a vegetarian
Households where peaches are among their favorite fruits	Those who do not agree with this statement
Participants who eat fresh peaches daily to a few times a week during the months of July through September	Those who eat peaches less frequently
Participants who consider fresh peaches a planned purchase	Those who do not
Participants who purchase fresh peaches daily to a few times a week during the months of July through September	Those who purchase less frequently

No statistical difference exhibited for the following segmentations:

- Who, in the household, eats fresh peaches
- Agreement with the statement: Participant enjoys preparing fruits and/or vegetables for meals that they cook for the household
- Age range
- Sex
- Number of adults in the household
- Number of children in the household

Table 6. Of the value-added products presented, products where at least 70% of a segment of participants indicated that they would be interested in purchasing.

Alcoholic beverages made with peaches (wine, hard cider, brandy, etc.). Data for participants age 21 and older

- Participants age 21 to 24
- Participants who buy fresh peaches daily to a few times a week during the months of July through September

Ready to eat snacks (dried peach slices, peach chips, etc.)

- Both male and female participants
- Participants in all age ranges
- Participants who both agree and disagree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household
- Participants who agree, neither agree nor disagree, and disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating
- Participants who agree and disagree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown
- Agrees and disagrees that fresh peaches are a planned purchase
- Agrees that peaches are among the household’s favorite fruit
- Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other adults
- Households with and without children
- Households with one or more adults
- Participants with any education level
- Participants with any level of income
- Households with and without vegetarians
- Participants who buy fresh peaches at frequencies other than “about once a month” during the months of July through September
- Participants who eats fresh peaches at two to three times a month or more frequently during the months of July through September
- Participants who stops and continues purchasing other fresh fruit they normally buy when fresh peaches are available

Non-alcoholic peach beverages (juice, tea, etc.)

- Both male and female participants
- Participants age 18 to 54 years
- Participants who agree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household
- Participants who agree, neither agree nor disagree, and disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating
- Participants who agree and disagree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown
- Agrees and disagrees that fresh peaches are a planned purchase
- Agrees that peaches are among the household’s favorite fruit
- Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other

	<p>adults</p> <ul style="list-style-type: none"> • Households with and without children • Households with one or more adults • Participants with less than a Master’s degree • Participants with any level of income • Households with and without vegetarians • Participants who buy fresh peaches two or three times a month or more frequently during the months of July through September • Participants who eats fresh peaches about once a month or more frequently during the months of July through September • Participants who stops and continues purchasing other fresh fruit they normally buy when fresh peaches are available 	
	<p>Peach smooties and peach flavored smoothie mix</p> <ul style="list-style-type: none"> • Female participants • Participants age 18 to 54 years • Participants who agree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household • Participants who agree and neither agree nor disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating • Participants who agree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown • Agrees that fresh peaches are a planned purchase • Agrees that peaches are among the household’s favorite fruit • Who eats fresh peaches in the household: participant living child(ren) and participant living with child(ren) and other adults • Households with at least one child • Households with two adults in addition to the participant • Participants who has some level of college/technical school education or greater • Participant with any level of income • Households where no one is a vegetarian but meat consumption has been reduced • Participants who buy fresh peaches about once a week or more frequently during the months of July through September • Participants who eats fresh peaches about once a month or more frequently during the months of July through September • Participants who stops purchasing other fresh fruit they normally buy when fresh peaches are available 	
	<p>Baby food made with peaches</p>	
	<ul style="list-style-type: none"> • Responses per segment were below 70% 	
	<p>Peach preserves, jellies, jams, or butters</p> <ul style="list-style-type: none"> • Both males and females • Participants in all age ranges • Participants who agree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household • Participants who agree, neither agree nor disagree, and disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating 	

	<ul style="list-style-type: none"> • Participants who agree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown • Agrees that fresh peaches are a planned purchase • Agrees that peaches are among the household’s favorite fruit • Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other adults • Households with and without children • Households with one or more adults • Participants with any level of education • Participants with any level of income • Households with and without vegetarians • Participants who buy fresh peaches two to three times a month or more frequently during the months of July through September • Participants who eats fresh peaches about once a month or more frequently during the months of July through September • Participants who stops and continues purchasing other fresh fruit they normally buy when fresh peaches are available
	<p>Frozen peaches, pie filling, or other frozen peach products</p>
	<ul style="list-style-type: none"> • Females • Participants age 25 to 34 years • Participants who agree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household • Participants who agree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown • Agrees that peaches are among the household’s favorite fruit • Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other adults • Households with at least one child • Households with two adults in addition to the participant • Participants with at least some college/technical school education • Participants with an income between \$25,000 and \$49,999 and \$100,000 and \$150,000 • Households with vegetarians • Participants who buy fresh peaches about once a week or more frequently during the months of July through September • Participants who eats fresh peaches daily to a few times a week during the months of July through September • Participants who stops purchasing other fresh fruit they normally buy when fresh peaches are available
	<p>Canned or jarred peaches or slices</p>
	<ul style="list-style-type: none"> • Both males and females • Participants in all age ranges • Participants who agree, neither agree nor disagree, and disagree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household • Participants who agree, neither agree nor disagree, and disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing

<p>fresh fruits that need to be processed prior to eating</p> <ul style="list-style-type: none"> • Participants who agree and disagree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown • Agrees and disagrees that fresh peaches are a planned purchase • Agrees and disagrees that peaches are among the household’s favorite fruit • Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other adults • Households with and without children • Households with one or more adults • Participants with any level of education • Participants with any level of income • Households with and without vegetarians • Participants who buy fresh peaches at any frequency during the months of July through September • Participants who eats fresh peaches at any frequently during the months of July through September • Participants who stops and continues purchasing other fresh fruit they normally buy when fresh peaches are available
<p>Peach vinegar</p>
<ul style="list-style-type: none"> • Responses per segment were below 70%
<p>Peach fruit leather, fruit candies, or snack bars</p>
<ul style="list-style-type: none"> • Participants age 18 to 24 years • Households with vegetarians • Participants who buy fresh peaches daily to a few times a week during the months of July through September
<p>Peach flavored oatmeal, toaster pastries, flavored cereal, or other breakfast foods</p>
<ul style="list-style-type: none"> • Participants age 18 to 44 years • Who eats fresh peaches in the household: participant living with child(ren) and participant living with child(ren) and other adults • Households with at least one child • Participants with an income between \$100,000 and \$150,000 • Households with vegetarians • Participants who buy fresh peaches daily to a few times a week during the months of July through September • Participants who eats fresh peaches daily to a few times a week during the months of July through September
<p>Peach flavored granola or cookies</p>
<ul style="list-style-type: none"> • Participants age 18 to 24 • Who eats fresh peaches in the household: participant living with child(ren) and other adults • Participants with an income between \$100,000 and \$150,000 • Households with vegetarians • Participants who buy fresh peaches daily to a few times a week during the months of July through September
<p>Peach pastries, cakes, or other bakery items</p>
<ul style="list-style-type: none"> • Both males and females • Participants in all age ranges

	<ul style="list-style-type: none"> • Participants who agree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household • Participants who agree, neither agree nor disagree, and disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating • Participants who agree and disagree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown • Agrees and disagrees that fresh peaches are a planned purchase • Agrees that peaches are among the household’s favorite fruit • Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other adults • Households with and without children • Households with one or more adults • Participants with any level of education • Participants with any level of income • Households with and without vegetarians • Participants who buy fresh peaches two to three times a month or more frequently during the months of July through September • Participants who eats fresh peaches about once a month or more frequently during the months of July through September • Participants who stops and continues purchasing other fresh fruit they normally buy when fresh peaches are available
	<p>Peach ice cream or other frozen desserts</p> <ul style="list-style-type: none"> • Both males and females • Participants in all age ranges • Participants who agree and disagree to the statement that they enjoy preparing fruits and/or vegetables for meals that they cook for the household • Participants who agree, neither agree nor disagree, and disagree to the statement that purchasing fresh fruits that are cut, peeled, and ready to eat is more appealing than purchasing fresh fruits that need to be processed prior to eating • Participants who agree and disagree to the statement that whenever possible they purchase fresh fruits and/or vegetables from the farmer who grew them or that are labeled locally grown • Agrees and disagrees that fresh peaches are a planned purchase • Agrees that peaches are among the household’s favorite fruit • Who eats fresh peaches in the household: participant living alone, participant living with a child(ren), participant living with other adult(s), and participant living with child(ren) and other adults • Households with and without children • Households with one or more adults • Participants with any level of education • Participants with any level of income • Households with and without vegetarians • Participants who buy fresh peaches two to three times a month or more frequently during the months of July through September • Participants who eats fresh peaches two to three times a month or more frequently during the months of July through September

<ul style="list-style-type: none"> Participants who stops and continues
Peach salad dressing, relish, salsa, barbecue sauce, dips, or other condiments
<ul style="list-style-type: none"> Responses per segment were below 70%

Sensory Evaluaton

Results from the liking/disliking evaluations are presented in Table 1. Brix and titratable acidity findings are shown in Table 2.

For color, texture, sweetness, flavor, and overall liking; ‘PF Lucky’ was rated significantly higher than the other samples. In terms of color and tartness, the mean ratings for ‘Redhaven’ and ‘PF Lucky’ were not significantly different. As well, for the attributes: sweetness, tartness, flavor, and overall ‘Raritan Rose’ and ‘Blazingstar’ ‘Blazingstar’ varieties were not significantly different.

For color, ‘PF Lucky’ received a significantly higher score than the other samples (mean of 7.77), which fell between ‘like very much’ and ‘like moderately.’ ‘Redhaven’ (7.07) fell close to ‘like moderately.’ ‘Blazingstar’ (6.70) fell between ‘like slightly’ and ‘like moderately.’ ‘Raritan Rose’ (4.05) fell close to ‘dislike slightly.’

For texture, all four samples were significantly different from each other. ‘PF Lucky’ received a significantly higher score than the other samples (mean of 7.64), which fell between ‘like very much’ and ‘like moderately.’ ‘Redhaven’ (6.89) fell between ‘like moderately’ and ‘like slightly.’ ‘Raritan Rose’ (5.72) fell between ‘like slightly’ and ‘neither like nor dislike.’ Blazing star (3.80) fell between ‘dislike slightly’ and ‘dislike moderately.’

In relation to tartness, ‘PF Lucky’ received a significantly higher score (6.68) compared to the other samples. This rating falls between ‘like moderately’ and ‘like slightly.’ ‘Blazingstar’ (mean of 5.03) and ‘Raritan Rose’ (4.92) were not significantly different from each other. Both samples fell near ‘neither like nor dislike.’ ‘Redhaven’ (5.98) fell near ‘like slightly.’

For flavor, ‘PF Lucky’ received a significantly higher score than the other samples (mean of 7.38), which fell between ‘like very much’ and ‘like moderately.’ ‘Redhaven’ (6.56) fell between ‘like moderately’ and ‘like slightly.’

In terms of overall liking, ‘PF Lucky’ received a significantly higher score than the other samples (mean of 7.43), which fell between ‘like moderately’ to ‘like very much’ compared to the other samples. ‘Redhaven’ (6.56) fell between ‘like slightly’ and ‘like moderately.’ ‘Raritan Rose’ (5.02) fell close to ‘neither like nor dislike.’ ‘Blazingstar’ (4.81) fell between ‘neither like nor dislike’ and ‘dislike slightly.’

Table 1. Mean attribute liking scores for 4 peach varieties

Attribute	‘Redhaven’ (Picked 7/31/13)	‘Raritan Rose’ (Picked 8/5/13)	‘PF Lucky’ (Picked 7/31/13)	‘Blazingstar’ (Picked 8/5/13)
Color¹	7.07b ²	4.05c	7.77a	6.70b
Texture	6.89b	5.72c	7.64a	3.80d
Sweetness	6.09b	4.74c	7.01a	4.60c
Tartness	5.98b	4.92c	6.68a	5.03c
Flavor	6.56b	5.18c	7.38a	5.02c
Overall	6.56b	5.02c	7.43a	4.81c

¹A 9-point hedonic scale was used for evaluating liking with 9=like extremely, 8=like very much, 7=like moderately, 6=like slightly, 5=neither like nor dislike, 4=dislike slightly, 3=dislike moderately, 2=dislike very much, 1=dislike extremely.

² Means with different letters within rows are significantly different $\alpha=0.05$. Significance was determined using ANOVA followed by Tukey’s HSD in Compusense[®] five software.

Table 2. Brix and titratable acidity for the 4 peach varieties

Variety	Brix	Titratable Acidity (g/L malic acid)
‘Redhaven’ (Picked 7/31/13)	7.1	1.64
‘Raritan Rose’ (Picked 8/5/13)	10.0	5.40
‘PF Lucky’ (Picked 7/31/13)	11.9	6.71
‘Blazingstar’ (Picked 8/5/13)	9.0	2.77

Demographics

Results from the demographic and behavior questions are shown in Table 3 and 4.

Table 3. Demographic and behavior characteristics (e.g., sex, age range, education level) for sensory testing participants (n=100)

Demographic variable	Frequency	Percent
Sex		
Female	72	72.0
Male	28	28.0
Age category		
18 to 20	2	2.0
21 to 24	8	8.0
25 to 34	23	23.0
35 to 44	21	21.0
45 to 64	45	45.0
65 and older	1	1.0
Purchase Peaches		
Daily to a few times a week	12	12.0
About once a week	44	44.0
Two to three times a month	37	37.0
About once a month	6	6.0
At least once during the period of July through September	1	1.0
I do not purchase fresh peaches during the period of July through September	0	0.0
Eat Peaches		
Daily to a few times a week	50	50.0
About once a week	28	28.0
Two to three times a month	17	17.0
About once a month	5	5.0
At least once during the period of	0	0.0

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July through September		
I do not purchase fresh peaches during the period of July through September	0	0.0
I do not eat fresh peaches	0	0.0
Highest level of education completed		
Some high school	0	0.0
High school graduate	18	18.0
Some college/technical school and graduate	9	9.0
Associate's degree	13	13.0
Bachelor's degree	35	35.0
Master's degree of higher	25	25.0
Household income		
Less than \$25,999	7	7.0
\$25,000 to \$49,999	26	26.0
\$50,000 to \$75,999	17	17.0
\$76,000 to \$99,999	28	28.0
\$100,000 to \$149,999	14	14.0
Grocery Shopping		
Less than half of the food shopping	3	3.0
About half of the food shopping	6	6.0
More than half of the food shopping	31	31.0
All of the food shopping	60	60.0
I do not do any of the food shopping	0	0.0
Purchasing plan		
I consider fresh peaches to be a planned purchase	45	45.0
I consider fresh peaches to be an impulse purchase	51	51.0
Neither applies	4	4.0
Favorite Fruit		
Agree	79	79.0
Disagree	21	21.0
During peach season, reduce other fruit purchases		
Agree	63	63.0
Disagree	37	37.0
Table 4. Storage responses (e.g. refrigerate, store at room temperature, etc.) for sensory testing participants (n=100)		
Storage variable	Frequency	Percent
Store peaches at room temperature		
Agree	71	71.0
Disagree	29	29.0
Store peaches in refrigerator		
Agree	39	39.0
Disagree	61.0	61.0
Eat most peaches before they go bad		
Agree	93	93.0
Disagree	7	7.0

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	<p>Eat all of the peaches before they go bad</p> <p>Agree 56 56.0</p> <p>Disagree 44 44.0</p> <p>Problem storing peaches</p> <p>Agree 46 46.0</p> <p>Disagree 54 54.0</p>
Lessons Learned:	<p>A majority (72.1%) responded that fresh peaches were a planned purchase and that fresh peaches were among their family’s favorite fruit (86.3%). Based on percentage, the top two responses that would encourage participants to purchase more fresh peaches than they typically do were: “family member of friend suggested the particular peach” (41.6%) and “information on how long peaches can be stored is present” (40.0%). An overwhelming percentage of participants responded that “peaches that are sweet” (88.6%) appeal to them, along with 65.3% of participants indicating that “peaches that are slightly soft” also were of value.</p> <p>With three value-added products (“ready to eat snacks,” “non-alcoholic peach beverages,” and “canned or jarred peaches or slices”) having been previously purchased by approximately 60% or more participants in each of the five segments, retailers interested in offering value-added products could begin their investigation of the market by first focusing on those products that have been purchased and show promise of continued interest.</p> <p>Within our sensory study, it is apparent that of the four cultivars tested, ‘PF Lucky 13’ was the most liked among our participants. Conversely, ‘Blazingstar’ and ‘Raritan Rose’ showed the lowest scores for each of all of the attributes assessed and had the significantly lower overall acceptability than either ‘Redhaven’ or ‘PF Lucky 13,’ which were the least accepted among consumers tested. ‘PF Lucky 13’ had the highest overall liking score, as well as the highest brix and titratable acidity, while the 2nd most liked peach, ‘Redhaven,’ had the lowest levels of sugar and acid.</p>
Beneficiaries:	<p>The beneficiaries of this project are the peach growers of Pennsylvania. In PA we have hundreds of peach operations who will benefit from the focus group information as well as the value-added product information. This information was distributed via oral presentation and extension articles and peer reviewed articles. More information is provided in the Additional Information section of this report.</p>
Contact Person:	<p>Kathleen Kelley Professor of Horticultural Marketing and Business Management Department of Plant Science</p>
Additional Information:	<p><i>Oral presentations</i></p> <p>Kelley K., R. Primrose, R. Crassweller, J. Hayes, and R. Marini. 2014. consumer peach purchasing and consumption behavior: Results from an internet survey. Food Distribution Research Society, Annual Meeting, Salt Lake City, UT.</p> <p>Kelley, K., R. Primorse, R. Crassweller, J. Hayes, and R. Marini. 2014. Consumer Peach Purchasing Behavior and Preferences. Mid-Atlantic Fruit and Vegetable Convention, Hershey, PA, 30 January.</p> <p><i>Extension Articles</i></p> <p>Kelley, K., R. Primrose, R. Crassweller, J. Hayes, and R. Marini. 2014. Consumer peach purchasing behavior and</p>

	<p>preferences, part 1: Results form an Internet survey. Pennsylvania Fruit News 94(9): 26-27.</p> <p>Primrose, R., K. Kelley, Crassweller, J. Hayes, and R. Marini. 2014. Consumer peach purchasing behavior and preferences, part 2: Results form a sensory evaluation. Pennsylvania Fruit News (In Press).</p> <p><i>Peer Reviewed Article</i></p> <p>Kelley, K., R. Primrose, R. Crassweller, J. Hayes, and R. Marini. Consumer peach preferences and purchasing behavior: A mixed methods study. Submitted to the Journal of Science of Food and Agriculture.</p>
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Project Title:	Microbial Food Safety Interventions to Prevent Surface Water Contamination of PA Specialty Crops, Project 8
Project Summary:	<p>This project is a follow-up to an earlier 2-year study on microbial populations in surface water used for irrigation. In that study, we found that most growers would find it difficult to meet current microbial food safety standards for agricultural water. In 2010 and 2011, 83% of farms tested more than once would have failed the EPA recreational water geometric mean standard for <i>E. coli</i> of 126 CFU/100 ml. The proposed Produce Safety Standards under the Food Safety Modernization Act have adopted this standard. Therefore, those farms that continue to use non-compliant surface water for direct contact irrigation, crop chemical or frost control sprays may be required to change their current practices. The aim of this project was therefore to explore methods to reduce <i>E. coli</i> in surface water with sanitizers and to determine any possible negative effects on crop quality.</p>
Project Approach:	<p>Our original objectives were to 1) Follow changes in microbial levels in an irrigation pond located at the Penn State Horticulture Research Farm 2) Determine the effect of in-line disinfection treatments on irrigation water and 3) Determine the effect of cultivation and irrigation method on microbial levels on harvested crops. Given the high incidence of <i>E. coli</i> reported in our previously conducted 2 year microbial survey of Pennsylvania surface water irrigation water sources, we proposed to explore methods for disinfection of water used to irrigate produce crops.</p> <p>Our work activities changed somewhat from the original plan due to changes in proposed produce safety standards proposed by FDA. Since this project was originally proposed, the FDA has released two draft versions of its Produce Safety Standard. In their first draft rule, they proposed to limit regulatory control to “agricultural water” which they defined as water that is intended to, or likely to, contact the harvestable part of the crop. This would leave non-contact irrigation water methods, such as could be achieved by drip methods, unregulated with no minimum <i>E. coli</i> standards in place. Thus the number of farms burdened by FDA regulation of overhead spray methods was reduced by the number of growers who use drip irrigation methods.</p> <p>Although FDA has provided ways growers, through careful planning, can use high <i>E. coli</i> crop contact irrigation water, there are other applications where a pre-harvest interval between application and harvest may not be predictable or practical. These are the use of overhead pre-harvest sprays for early or late season frost control or mid-season cooling and the use of chemical crop sprays, some of which may applied as close as the day before harvest. In addition, there may be adverse interactions between sanitizers added to surface water and the efficacy of the chemical crop sprays from which they are prepared. Thus, we shifted our approach in 2014 to take up these topics.</p>

	<p>The following is a summary of the activities conducted and completed during the course of the project. A drip irrigation system was set up at the Horticultural Research Farm at Rock Springs, PA to determine the feasibility of injecting calcium hypochlorite sanitizer into drip irrigation lines in order to render the water compliant with anticipated produce safety standards to be established under the Food Safety Modernization Act. Injection of the sanitizer was feasible; however the efficacy of the sanitizer would be greatly reduced under the alkaline water conditions at Rock Springs. Furthermore, toxic effects were observed and concerns were raised about the long term effect of residual chlorinated byproducts on the soil biome. The following season, a bio-degradable and less pH sensitive sanitizer formulated with peracetic (also called peroxyacetic) acid (PAA) and hydrogen peroxide (HP) was studied. Because <i>E. coli</i> levels in Rock Springs surface water sources were too low to determine actual microbial reductions and <i>E. coli</i> inoculation studies would not be permitted in the field, laboratory studies were performed to determine required concentrations necessary to limit high levels of <i>E. coli</i>. The data showed that Sanidate 12.0 rapidly killed <i>E. coli</i> at PAA levels of 8 or 10 ppm PAA. The efficacy of other PAA/HP formulations (Sanidate 5.0 and Oxidate) was evaluated, each diluted to achieve an identical PAA concentration of 4 ppm. Differences in the rate of <i>E. coli</i> reduction among sanitizers occurred and were attributed to increasing proportions of hydrogen peroxide, which by itself has antimicrobial properties. The efficacy of Sanidate 12.0 was affected by the quality of water used. Filtering water prior to addition of sanitizer appears to be beneficial, most likely by removing particulate matter that can inactivate the sanitizer. Field trials were conducted to determine effects of Sanidate 12.0 (8 ppm PA) on the efficacy of fungicides used to suppress late blight disease on tomatoes and on possible adverse effects of Sanidate 12.0 on strawberry fruit set. No adverse effects were observed either on late blight control or strawberry fruit set. Thus growers who use surface water containing non-compliant levels of <i>E. coli</i> for preparation of late blight sprays or for overhead irrigation or frost control may disinfect crop contact water with Sanidate 12.0 without adverse effects.</p> <p>From these results, we conclude the following.</p> <ol style="list-style-type: none"> 1) Because federal agricultural water regulations do not apply to water that is not intended or is unlikely to contact the edible part of the crop, injection of sanitizers into drip irrigation systems to lower <i>E. coli</i> levels is not necessary 2) Disinfection of overhead spray water with peroxyacetic acid/hydrogen peroxide prior to application does not have any negative effects on strawberry fruit set or crop quality. 3) Disinfection of water with peroxyacetic acid/hydrogen peroxide prior to preparing fungicides to control light blight on tomatoes does not have any negative effects on the efficacy of these fungicides.
<p>Goals and Outcomes Achieved:</p>	<p>The following is a detailed description of goals and outcomes achieved.</p> <p>A) Experiments performed in 2013 (data and supplementary material in Appendix 1)</p> <p>1) Rock Springs pond water sampling. Because this study was to take place at the Penn State Agricultural Research Farm in Rock Springs, PA, our first effort in the summer of 2013 was to evaluate this water source for the presence of <i>E. coli</i>. Between June and August, three replicate 500 ml samples were taken using a telescoping sampling pole at a point approximately 10 feet out from the edge of the pond. After recording water temperature, samples were immediately transported to the Penn State Food Science Building for analysis of Petrifilm™ enumeration of aerobic plate count (APC), <i>E. col.</i> (EC), and <i>Enterobacteriaceae</i> (ENTB) levels. Microbial counts were greatest for APC followed by Enterobacteriaceae, and <i>E. coli</i>. This was not unexpected given that each microbial group/species is a subcategory of the preceding one. There is no clear trend describing population trends over the sampling period. <i>E. coli</i> levels were well below the EPA limit of 126 <i>E. coli</i>/100 ml. this was somewhat surprising given that the water source was open to animal intrusion and environmental run-off. However, <i>E. coli</i> levels are known to vary considerably from day to day through the season and there are no consistently accurate methods to predict levels based on environmental factors</p>

such as air and water temperature, rain fall, or topography.

2) Calcium hypochlorite treatment of irrigation water field trial. In May of 2013, we purchased equipment for our drip and spray irrigation system. The system consisted of a sand filter, fertilizer injector, pressure regulator, drip lines, fittings, and a single overhead spray assembly. The system was constructed and installed at the Penn State Rock Springs Horticultural Research Center in July of 2013. Water was drawn from a holding pond approximately ½ mile from the field through an underground line to a hydrant adjacent to the field. System flow rate was set at 0.22 gallons/min/100ft of drip line. The injection rate was set to achieve a 1:50 dilution. Trials were conducted using three concentrations of calcium hypochlorite at total hypochlorite (TC) levels of 750, 2500, or 500 ppm thus achieving calculated final TC of 15, 50, and 200 ppm, respectively. For each trial, the injector was filled with approximately three gallons of solution. The order of trials was from lowest to highest concentration. Prior to sampling, the system was allowed to run for 15 minutes to allow concentration equilibrium through the length of the drip system. A schematic of the drip system with sampling locations and a table of results are shown in Appendix 1. We were able to demonstrate that a working system can be built that will deliver doses of disinfectants through drip lines and through a sprinkler apparatus. However, our results were disappointing in that ORP levels dropped markedly as the disinfectant passed through the drip lines. ORP describes the oxidizing potential of the solution and is a useful predictor for destruction of microorganisms. In general, ORP values between 650 and 700 mV results in destruction of pathogenic bacteria in a few seconds. Because ORP levels fell below 300 mV soon after entering the injector, the effectiveness of this treatment is doubtful. ORP values decrease when chlorine disinfectants are exposed to organic matter which was likely present even after sand filtration. pH also strongly determines chlorine solution ORP. In general the pH should be between 6.5 and 7.5. The high pH values (>9) in the Rock Springs water source indicated to us that acidity control would be necessary if hypochlorite sanitizers were to be used. We also observed that even the most diluted calcium hypochlorite solutions were toxic as evidenced by the sudden emergence of earthworms from the soil to the surface upon exposure to the disinfectant and their eventual death. Although widely used to disinfect water, there are increasing concerns about the long term toxicity of residual hypochlorite break down product. Thus we have concerns about negative impacts of hypochlorite stability in the presence of soils and at high pH values, as well as possible negative effects on the soil biosphere.

B) Experiments performed in 2014 (data and supplementary material in Appendix 2)

In 2014, a review of the literature led us to consider using peroxy acid/hydrogen peroxide formulations for disinfection of agricultural water. This class of sanitizer is more stable than hypochlorite at higher pH values and it breaks down to simple biodegradable non-toxic end products. Our approach in 2014 was to determine the efficacy of peroxy acid/hydrogen peroxide disinfectant on the destruction of *E. coli* in the laboratory. Then, based on these findings, we would specify a dilution rate to be used in field studies at the Rock Springs research farm. Our objectives were to 1) determine in the laboratory concentrations of peroxy acid/peroxide sanitizer necessary to eliminate *E. coli* inoculated into in Rock Springs surface water, 2) determine if preparation of late blight fungicides with disinfectant treated water has any negative effects on pre-harvest disease control in tomatoes and 2) determine if treated surface water has any negative effects on strawberry crop quality as assessed by fruit set and yield. The following describes the methods we used for the 2014 laboratory and field studies and the results we obtained.

1) Peroxy acetic acid/peroxide disinfectant laboratory trials. The efficacy of peracetic acid/hydrogen peroxide sanitizers on the destruction of *E. coli* inoculated into Rock Springs surface water was determined in a controlled laboratory setting.

Because current and proposed agricultural water standards demand testing for *E. coli* levels, a non-pathogenic strain (K12) was obtained from the Penn State Food Science Department and grown on brain heart infusion broth (BHI; Difco, Detroit, MI). A loopful of culture was streaked onto tryptic soy agar (TSA; Difco) and incubated at 35°C for 24 h. An isolated colony from the TSA was then used to inoculate a tube of

BHI, which was used as the working culture for all experiments in this study. Prior to each experiment, a loopful of culture was transferred from the working culture into a fresh BHI tube and incubated at 35°C for 18-24 h, resulting in growth to about 10⁸ CFU/g to 10⁹ CFU/g. This assured consistency in all *E. coli* experiments.

Pond water was obtained from two different sources within the Penn State Agriculture Research Center at Rock Springs; 1) the plant pathology research farm and 2) the horticulture farm. Each farm sources water from separate ponds that is routed through a system of underground pipes. Water from the plant pathology farm is passed through a cartridge filter at a staging area where workers routinely collect it for their regular fungicide trials. Water used in the horticultural research farm was obtained unfiltered via a hydrant adjacent to the test plot. For laboratory studies, water was allowed to run for 2 min before collection in autoclaved 20 L Nalgene carboys (Thermo Fisher Scientific, Pittsburgh, PA) and then immediately transported by car within 25 min to the Penn State Food Science laboratory. There it was stored at 3.1°C until used. Pond water in the carboy was replaced weekly.

Pond water was measured for pH, and 1 mL was plated in duplicate onto E.coli/Coliform Petrifilm (3M, St. Paul, MN) following AOAC Official Method 991.14 immediately after each collection and before each experiment. The filtered water from the plant pathology farm water was clear and did not show any evidence of insoluble particulates, whereas the horticulture farm water appeared to contain orange-brown insoluble particulates.

Experiment 1. Effect of peracetic acid concentration in SaniDate 12.0 on the destruction of *E. coli*

Methods. For this experiment, only filtered pond water from the plant pathology farm was used. Five concentrations peroxyacetic acid/hydrogen peroxide sanitizer (SaniDate™12.0) was chosen based on the manufacturer’s label recommendations. For each treatment, 1.0 g of *E. coli* culture was added to 999 g of pond water which was stirred continuously with a magnetic stir bar and plate at setting 3 (VWR, Radnor, PA). Appropriate amounts of SaniDate 12.0 were added to achieve a calculated concentration of: 2, 4, 6, 8, and 10 ppm PAA for 2, 5, 15, or 30 min. Calculated PAA concentrations were confirmed using a Reflectoquant (EMD Millipore, Billerica, MA). A 200 ppm calcium hypochlorite (Sigma-Aldrich, St. Louis, MO) treatment was also included as a comparison. Following each treatment, a 1 mL sample was added to 9 mL of neutralizing broth (0.1% sodium thiosulfate, 0.01% catalase), vortexed, and held at room temperature for at least 2 min. Appropriate dilutions were made in phosphate buffer and plated onto *E. coli*/Coliform Petrifilm in duplicate. The negative control consisting of 1 L of pond water and 1 mL of culture was plated as previously described to determine if *E. coli* counts changed when no sanitizer was present. One milliliter of the control was added to 9 mL of the neutralizing buffer for 2 or 30 min on *E. coli*/Coliform Petrifilm. All Petrifilm plates were incubated at 35°C for 24 h. This experiment was replicated 3 times.

Results: The pH of the plant pathology and horticulture farm pond water ranged from 9.08 to 9.65 and 9.11 to 9.40, respectively. *E.coli* was not detected in any untreated pond water samples. Reflectoquant measurements confirmed calculated PAA concentrations within +/- 1.5 ppm

The results shown in Figure 1 indicate that the rate of destruction of *E. coli* increases with increasing concentration of SaniDate 12.0. For the negative control (0 ppm sanitizer) and the 2 ppm treatment, less than a 0.5-log CFU/g reduction of *E. coli* occurred after 30 min. At 4 and 6 ppm PAA, a 6-log reduction occurred after 15 and 5 min, respectively. However, at 8 and 10 ppm PAA, a 6-log reduction after only 2 min occurred. It can be concluded that SaniDate 12.0 at 8 or 10 ppm is effective for eliminating *E. coli* in pond water within minutes of application.

Experiment 2. Effects of different formulations of peracetic/peroxide sanitizers each at 4ppm PAA on the destruction of *E. coli*.

Methods: Pond water from the plant pathology farm was used. SaniDate 12.0, SaniDate 5.0, and OxiDate 2.0 were compared by calculating the amount necessary for each formulation to achieve a 4 ppm PAA level. Inoculation of *E. coli* was carried out as previously described. Appropriate amounts of SaniDate 12.0, SaniDate

5.0, and OxiDate 2.0 were added to achieve a calculated concentration of 4 ppm PAA. After preparation, the actual measured levels of hydrogen peroxide were 6.11, 17.37, and 54 ppm for SaniDate 12.0, SaniDate 5.0, and OxiDate 2.0, respectively. Following each treatment, samples were analyzed as previously described. This experiment was replicated 3 times.

Results: The results shown in Figure 2 show that the order of effectiveness in decreasing order is OxiDate 2.0, SaniDate 5.0, and SaniDate 12.0. SaniDate 5.0 and SaniDate 12.0 at 4 ppm PAA resulted in approximately a 3.5-log reduction and 1.5-log reduction after 15 min, respectively. However, OxiDate 2.0 resulted in a 6-log reduction after only 10 min. The negative control showed less than 0.5-log CFU/g decrease over 15 min (data not shown). From these results we can conclude that when the 3 sanitizers are diluted to an equal concentration of PAA, differences in destruction of *E. coli* occur and the rate of destruction is positively affected by the resulting hydrogen peroxide level.

Experiment 3. Effect of SaniDate 12.0 (4ppm PAA) on destruction of *E. coli* in two irrigation water sources

Methods: In this experiment, pond water from the plant pathology and horticulture farm were used as water sources. For each treatment, *E. coli* was inoculated as previously described. The appropriate amount of SaniDate 12.0 was added to achieve a calculated concentration of 4 ppm PAA for each water type. Samples were prepared and analyzed as previously described. The negative control prepared and plated as previously described. This experiment was replicated 3 times.

Results: The results in Figure 3 show that *E. coli* destruction rates were higher in 4 ppm PAA SaniDate 12.0 in plant pathology water compared horticulture farm water. SaniDate 12.0 at 4 ppm PAA in horticulture farm pond water resulted in less than a 1.5-log reduction of *E. coli* after 15 min. However, in plant pathology farm pond water, the same sanitizer and concentration resulted in a 6-log reduction after 15 min. The negative controls for both water sources showed less than a 0.5-log CFU/g decrease over 15 min (data not shown). Because the pH of each water source was nearly the same, a tentative explanation for these results may be the observed presence of particulates in the un-filtered horticulture farm water. Perhaps precipitated iron residues acted to inactivate the disinfectant thus reducing its effectiveness.

B) FIELD TRIALS

Co researchers for 2014 field research were Dr. Beth Gugino, Associate Professor in the Penn State Department of Plant Pathology and Environmental Microbiology, Ms. Kathy Demchak, Senior Extension Associate in the Department of Plant Sciences, and Dr. Stephanie Doores, Associate Professor of Food Microbiology in the Department of Food Science. For all field trials, Sanidate 12.0 stock solutions were prepared in the Food Science microbiology laboratory so that upon dilution in the field immediately prior to use, a final concentration of 8 PPM PAA would be achieved.

1) Late blight fungicide trials

Methods: This trial was conducted at the Pennsylvania State University Russell E. Larson Agricultural Research and Extension Center at Rock Springs under the supervision of Beth K. Gugino, Penn State Department of Plant Pathology and Environmental Microbiology. The field (Hagerstown silty clay loam soli) was plowed and prepared on 1 Jul. No pre-plant fertilizer was necessary based on soil test reports. Tomato transplants cv. Mountain Fresh Plus were transplanted on 7 Jul. A starter fertilizer 20-20-20 (N-P-K) along with Admire 2F (1.0 pt/A) was applied in the transplant water. Each plot was 12-ft-long and separated by a 5-ft break within the row and 5-ft between row centers. Guard rows separated each treatment row. Each plot was planted with 8 transplants spaced 18-in. apart. Treatments were replicated four times and arranged in a randomized complete block design. Weeds were managed with an application of Dual Magnum (1.5 pt/A) and Sencor DF (0.33 lb/A) on 1 Jul and supplemented with hand weeding. Plots were fertigated regularly (N-P-K, 20-20-20, 7 lb N/A) with a single row of drip irrigation placed adjacent to the base of the plant. Fungicide applications were made using a tractor mounted, R&D CO₂ powered side boom sprayer traveling 3 mph and calibrated to deliver 28 gpa at 32 psi at the tank through one center and two drop TX-18 hollow-cone nozzles on 18, 24, 31

Jul and 7, 14, 21 and 28 Aug for a total of 7 applications. The treatment application made on 21 Aug only had 25 min of drying time prior to a rain event.

Results: All symptoms of late blight resulted from natural infection which was first observed on 14 Aug. Due to frequent rains and long dew periods, overhead irrigation was not necessary to encourage disease development. Foliar late blight severity was evaluated on 16, 22, 26 and 28 Aug based on the percentage of the plot showing symptoms. Disease pressure was severe with the untreated control plots reaching nearly 100% disease severity by the end of the trial. No phytotoxicity was observed. Rainfall totals were 3.66 in. for 7 to 31 Jul and 5.52 in. for 1 and 28 Aug, respectively.

The use of Sanidate 12.0 to prepare fungicide sprays did not have a significant effect on the efficacy of late blight suppression.

2) Strawberry field studies

Experiment 1. – Effect of submerging strawberry blossoms in Sanidate solutions.

Methods: Day-neutral strawberry plants were used for field experiments so that blossoms and fruit would be present when needed. Experiments were conducted in late summer and fall of 2014 after plants were established and blooming in sufficient numbers to reach conclusions. The water source the pond used for the Penn State's Horticulture Research Farm. Sanidate 12.0 (18.5% hydrogen peroxide, 12% peroxyacetic acid, Biosafe Systems) was used for all experiments.

In a preliminary field experiment, on August 27, blossoms of 'Portola' and 'Monterey' plants were submerged in vials of solutions containing only pond water, or Sanidate diluted with pond water to form an 8 ppm peroxyacetic acid solution, using 4 replications (2 of each variety) in a randomized complete block design. Blossoms remained submerged and thus were in constant contact with the solutions for 1, 2, 4, or 18 hours. Non-treated blossoms of the same age were also marked. Blossoms and fruit were examined three times weekly for signs of negative effects (deformed berries or discoloration of fruit or floral parts).

Results: No effects from treatments were seen, though some berry damage from tarnished plant bug feeding was present. Berries given a 1 to 5 rating for berry shape on September 17 as berries were full green size, with 1 indicating a perfect shape, and 5 indicating misshapen berries. The average rating for berries not submerged at all was 3.0. The average rating for berries developing from blossoms submerged in water alone was 2.8, and berries from blossoms submerged in the 8 ppm peroxyacetic acid solution was 2.2, with no significant differences among treatments. It was concluded that blossom contact with the sanitized solution was safe and caused no harm to the blossoms or subsequent fruit development.

Experiment 2. Effect of application of injected Sanidate 12.0 on strawberry quality

Methods: In a second field experiment intended to simulate overhead irrigation in a grower's field, plants of the varieties 'Seascape', 'San Andreas', 'Portola', and 'Monterey' were established in a matted row system on June 25. One 32'-long row of each variety was planted in blocks, with a 60' space between groups of plants to allow overhead irrigation to be used for application of treatments without overlap. The application pattern of water with standard impact sprinklers was measured lengthwise and across each block and was found to be too variable for further work; thus this system was replaced with customized risers that allowed connection of heavy duty garden hose and garden sprinklers to standard aluminum solid-set pipe. This was found to result in a much more uniform application pattern while applying a very similar amount of water per area. Sanidate was diluted using pond water (8 ml of Sanidate per gallon of water), and mixed in containers in the field. This solution was then injected into irrigation lines using proportioners that injected the diluted solution in a 1:28 ratio, plus or minus 15%, calculated to apply the needed 8 ppm solution of peroxyacetic acid. During actual treatment on October 10, all plots were watered for 4 hours total, with Sanidate not being injected at all (only pond water being applied for 4 hours), being injected for the last 1 hour of irrigation (3 hours of pond water followed by 1 hour of 8 ppm PAA), being injected during the last 2 hours of irrigation (2 hours of water followed by 2 hours of 8 ppm peroxyacetic acid solution), or being injected for the entire time (4 hours of an 8 ppm peroxyacetic acid solution). All blossoms that were open on October 10 were tagged just

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	<p>before application and examined twice per week until all berries were fully-sized.</p> <p>Results: No signs of damage to blossom, fruit deformities, or discolored berries were found from any of the treatments. Thus, again the conclusion was that damage to blossoms or berries from injection of this sanitizer even at a very high concentration was unlikely to occur. One interesting observation, considering berries harvested immediately after the treatments were applied, was that those watered with the 8ppm PAA solution had less rot than those watered with untreated water (6% compared to 40%), when evaluated 2 days after harvest. However, this was a fleeting effect, as differences in keeping quality of berries harvested 3 days later were minimal.</p>
<p>Beneficiaries:</p>	<p>Given the current shifting positions taken by FDA on proposed federal agricultural water regulations, prediction of the exact requirements for use of agricultural water remains uncertain until the final produce safety regulation is issued in October of 2015. Nevertheless the preliminary work carried out on the project is beneficial to Pennsylvania produce growers in that we have demonstrated the feasibility of lowering <i>E. coli</i> levels in surface water used for direct application on crops. Demonstration of the effectiveness of a peroxyacetic acid/hydrogen peroxide for water disinfection without adverse crop production effects provides growers an alternative to toxic, caustic hypochlorite sanitizers that can be readily neutralized when high pH, high organic matter water is used to prepare solutions. The importance of pre-filtering water before sanitizer addition was shown beneficial and may also apply to other sanitizers. Further research is needed in this area. As part of this project, information on the chemistry and technology of agricultural water disinfection and the proposed federal produce standards was disseminated to stakeholders through the Penn State Extension GAP program.</p> <p>In 2012-2013, farm food safety training materials were updated to include discussions on the methods for reducing the risk crop contamination through irrigation water. Curricular materials were prepared and presented at 1-day GAP workshops which included a module on safe use of agricultural water was presented to 159 growers. 1-hour presentations on GAPs were provided to 773 individuals at winter meetings throughout the state. This included at two 1-hour webinars on GAP issues of importance to Pennsylvania growers including new proposed water testing requirements. Consistently, issues related to safe use of water and impending federal regulation of agricultural water remain the most discussed topics.</p> <p>In 2013-2014, GAP outreach continued. Dr. LaBorde was invited by the Pennsylvania Department of Agriculture to serve on a panel that discussed implications of the proposed FDA produce safety standards and provided expertise on how new water safety standards would affect Pennsylvania growers. Three 1-day Harmonized GAP farm food safety plan writing courses were presented to 74 individuals. Approaches to conducting a water safety risk assessment and documenting water testing were presented. A lecture titled “Agricultural Water Standards and Food Safety” was presented to 125 growers in Adams County and a webinar titled “Water Standards and Testing Requirements under the Food Safety Modernization Act” was presented to 68 individuals. A presentation titled “Food Safety Aspects of Irrigation Water” presented at the 2014 Mid-Atlantic Fruit and Vegetable Convention provided 50 growers with an update of our research conducted in 2013 and our plans for the coming summer season. We will present another update at the 2015 convention. Because of the importance of water as a possible vehicle for crop contamination and impending federal regulations on minimizing water use risks, this topic remains a high priority and we will continue to keep produce growers informed on this issue.</p>
<p>Lessons Learned:</p>	<p>In their latest proposed produce safety standards, FDA emphasized the importance of conducting regional research on agricultural water issues. However specifying control measures to meet federal microbial standards remains difficult when those standards change each time the rule is revised. When the final rule is issued in October of 2015, we shall have a more defined path as to what research is of immediate importance. The multi-disciplinary connections made between the Departments of Food Science, Plant Science, and Plant Pathology and Environmental Microbiology have been productive and we expect more collaborative GAP research projects in the future. Research was challenged by delays in transferring funds to</p>

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	<p>Penn State, retaining workers throughout the summer, and the short growing season. In the future, agricultural water research should be expanded to research and demonstration farms around the state including the Southeast Agricultural Research and Extension Center in Landisville, PA and the Fruit Research and Extension Center (FREC) in Biglerville, PA. Extension educators should take a leadership role in conducting such research. We are currently leveraging the progress we have made to seek funds from other sources to expand our GAP research program particular with respect to FSMA regulations that will impact Pennsylvania produce growers. We are exploring re-allocating current resources and/or hiring new researchers and educators that have expertise in both produce production practices and food safety.</p>
<p>Contact Person:</p>	<p>Luke LaBorde Ph.D. Associate Professor Department of Food Science Penn State University University Park, PA 16802 Phone: 814.863.2298 Fax: 814.863.6132 E-mail: lf15@psu.edu</p>



<p>Project Title:</p>	<p>Providing educational opportunities for Young and Beginning Specialty Crop Producers in business and financial management skills, Project 10</p>
<p>Project Summary:</p>	<p>Access to credit and understanding market development principles, especially in light of recent and ongoing economic factors is of increasing importance for the successful producer. Lenders are much more risk adverse with well-established producers and even more so with those just starting into farming for the first time or looking to take over the family farm. It is increasing necessary for potential borrowers to show sound business practices, to clearly address marketing goals and assumptions, project cash flow, income and balance sheets and to have a grasp of the overall risk factors and have plans for mitigating those risks when seeking capital. In other words, of the many hats a farmer must wear, the business marketing and planning hat requires much more attention in today’s economy.</p> <p>Farmers are often inundated with helpful workshops, websites and workbooks that present static, one-off information that address many farm related business topics. However, many of these are tailored to the middle of the road or “average” set of circumstances. While helpful, the reality is these topics require focus and individualized attention. The AgBiz Masters course provided more focused and directed approach to business topics and provide a forum for addressing the individualized issues that will certainly come up when planning a business. The scholarships provided allowed for more specialty crops producers to participate than would have without the scholarships and increased knowledge in the areas of Megatrends of Agriculture, Strategic Business Planning, Preparing for Your Lender, Constructing a Balance Sheet, Constructing an Income Statement and Cash Flow Projection, Understanding Lending Decisions, Farm Business Management Factors and Benchmarks, Growth and Transition Management, Personal Financial Management, Communications, Ethics and Leadership.</p> <p>The AgBiz Masters program is targeted to young and beginning farmers, defined as less than 10 years of experience and 35 years of age or younger who currently operate or work on a farm producing specialty crops or plan to begin a specialty crops farm.</p> <p>The potential to reach producers early in their career, as they are starting to take a more active role in management decisions on a family farm or seeking entry into farming for the first time is very significant. Data in a USDA Economic Research Services (ERS) publication from 2009 on beginning farmers and ranchers clearly indicate that one of the primary obstacles to entry into farming is high startup costs. Coupled with</p>

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	<p>current realities in access to capital, especially for beginning businesses, the need for sound business planning and management as well as financial management is critical to their ability to work with lenders and to be prepared with or at least aware of the need for sound business planning tools.</p> <p>This type of preparation can have the short term goal of providing a solid foundation for the young and beginning farmer as they seek capital to start or take over a farming operation, work with the current generation on the farm to implement the concepts learned through the course providing for the short term and prepare through sound planning for the long term prosperity of the operation.</p> <p>Regarding the long term prosperity of the operation, the ERS publication⁽¹⁾ also discussed the failure rates of beginning farmers and ranchers. For the sample period, 44.6 percent of the farms survived the first 5 years of business with less than 20 percent surviving through 15 years. The planning and financial management skills that will be provided through AgBiz Masters program is designed specifically to enhance the skills of participants to give them the best chance at survival.</p> <p>This project does not build on a previous Specialty Crops Block Grant project.</p>
<p>Project Approach:</p>	<p>Task 1: Meet with AgChoice to develop outreach strategy to attract eligible applicants for the scholarship (<i>October 31, 2012</i>)</p> <p>Task 2: Develop outreach materials and application (<i>October 2012</i>)</p> <p>Task 3: Distribute outreach materials and accept applications for Year One and Year Two AgBiz Masters participants (<i>October/November 2012</i>)</p> <p>Task 4: Review and approve first class of Year One and Year Two eligible applicants and communicate approval to AgChoice and awardees (<i>Feb 27, 2013</i>)</p> <p>Task 5: Track progress of scholarship recipients (<i>throughout the months of the program starting in November 2012 and ending March 2013</i>)</p> <p>Task 6: Confirm successful course completion of scholarship awardees and distribute scholarship funds (<i>May 1, 2013</i>)</p> <p>Task 7: Meet with AgChoice to discuss outcomes and Tasks from first class of scholarships, review and refine outreach materials (<i>April 23, 2013</i>)</p> <p>Task 8: Distribute outreach material and solicit application for second class of Year One participants (<i>May 2013 – October 2013</i>)</p> <p>Task 9: Reach out to first class of Year One participants and confirm enrollment in Year Two of the AgBiz Masters Program (<i>end of June 2013 – beginning of July 2013</i>)</p> <p>Task 10: Review and approve eligible applicants for second class of Year One scholarship awardees and communicate approval to AgChoice and awardees (<i>Registration lists reviewed October 24, October 30 and Nov 7th 2013</i>)</p> <p>Task 11: Review and approve Year Two scholarship awards for first class of Year One scholarship awardees and communicate approval to AgChoice and awardees (<i>Registration lists reviewed October 24, October 30 and Nov 7th 2013</i>)</p> <p>Task 12: Planning and preparation for one day workshop (<i>This was removed as part of a grant change request</i>)</p> <p>Task 13: Finalize preparations for and conduct one day meeting (<i>This was removed as part of a grant change request</i>)</p> <p>Task 14: Track progress of scholarship recipients, First class in year two and second class in year one (<i>Facilitated classes with participants from Nov 2013 through March 2014 also reviewed participant progress on Feb 18, 2015</i>)</p> <p>Task 15: Confirm successful course completion for first class on Year Two awardees and Second class of Year One awardees and distribute scholarship funds (<i>April 24, 2014</i>)</p> <p>Task 16: Meet with AgChoice to discuss outcomes and Tasks from second class of Year One scholarships (<i>May 28, 2014</i>)</p> <p>Task 17: Reach out to second class of Year One participants and confirm enrollment in Year Two of the AgBiz</p>

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	<p>Masters Program(<i>end of July 2014 through beginning of August 2014</i>)</p> <p>Task 18: Review and approve Year Two scholarship awards for second class of Year One scholarship awardees and communicate approval to AgChoice and awardees (<i>October 21, 2014</i>)</p> <p>Task 19: Track progress of scholarship recipients, Second class in year two (<i>November 2014 – March 2015</i>)</p> <p>Task 20: Confirm successful course completion for first class on Year Two awardees and Second class of Year One awardees and distribute scholarship funds (<i>May 12, 2015</i>)</p> <p>Task 21: Meet with AgChoice to discuss outcomes for project develop material for final report (<i>June 1, 2015</i>)</p>
<p>Goals and Outcomes Achieved:</p>	<p>Through promotion of the program and review of potential applicants, producers who qualified as specialty crops producers were offered scholarships to participate in the AgBiz Masters Program</p> <p>Of the approximately 92 producers selected to receive the scholarship, 72 completed the program and received reimbursement. The goal for this grant was 80 scholarships.</p> <p>Payment of the scholarships award was based on the successful completion of year one and/or year two of the AgBiz Masters programs. Those producers that did not complete the program were not provided a scholarship. Approximately 20 producers that could have qualified for the scholarship decided to exit the AgBiz Masters Program and therefore did not receive scholarship dollars.</p> <p>Surveys were conducted with participants to gauge the success of the program. Below is a sample of response to the Question, What has been the most beneficial part of being in AgBiz Masters this year:</p> <ul style="list-style-type: none"> • “This workshop forces you to look a the "big picture" of your business, not just your own area of expertise.” • “Getting a better picture of the things we need to process and complete before starting to farm” • “The discussion questions were helpful in getting us started without business plan and forced us to discuss some tough topics that we may have otherwise choose to ignore.” • “AgBiz Masters brings to the fore front of thought and conversation the issues that are critical to successful business management - especially for operations that have a wide spread of family members.” • “A good overview of business management for ag that can as base for further study. Good degree of interactive work that allows for personalized application.” • “Seeing how others handle similar situations to what our family has/is going through” • 100% indicated an increase in knowledge of business practices • When asked “Have you started to write or update a business plan for your operation, 70% said yes, 30% said no
<p>Beneficiaries:</p>	<p>Seventy-Two applications (which can include up to 2 participants per application) included 132 young and beginning farmers, defined as less than 10 years of experience and 35 years of age or younger who currently operate or work on a farm producing specialty crops or plan to begin a specialty crops farm.</p> <p>Potential economic impacts will not be directly measurable, however if the successful completion of the AgBiz Masters course improves the planning and/or the planning provides the foundation for a more successful and longer surviving farm, the impact will be significant. Pennsylvania farms average 123 acres in size⁽²⁾ with nearly \$92,000 in cash receipts.⁽³⁾ If half of the participants are successful in purchasing or taking over the family farm as a result at least in some part to the course, that would me an additional 2500 acres staying in farming and nearly \$2 million in additional farm revenue in Pennsylvania.</p> <p>Selection of the types of operations as provided by participants:</p>

	<p><u>Cumberland County, PA</u> My fiancé and I have been working on farms for the last 3 years and have decided this year to buy our own farm and begin the farm business we have always dreamed of creating. I have 3 years managerial experience at a 40 acre non-certified organic vegetable farm (Earth Spring Farm). Matthew has one year managerial experience and several years of field crew experience at North Mountain Pastures and various vegetable farms. We are in the process of buying 8.8 acre farm to begin our farm business in the fall of 2015.</p> <p><u>Alexandria County, VA</u> Completed farm internship at Public House Produce in Luray, VA. Contributed numerous volunteer hours for all aspects of vineyard operations at Wisteria Farm and Vineyard, Stanley, VA. Worked on establishing two hops growing operations for brewing enthusiasts in Page County, VA - one with 24 hills, and the second with 6 hills. Used the locally grown hops for brewing. Active supporter of Page County Grown - non-profit established to promote family-owned small farms in Page County, VA.</p> <p><u>Adams County, PA</u> Fruit Farm - We grow apples & cherries. We are 800 acres. I came back to the farm in 2010 after graduating college. The farm is owned by my dad and his two brothers. My cousin and I are the only two of our generation to return to the farm.</p> <p><u>Cumberland County, PA</u> Currently, I manage Fulton Farm, a certified organic vegetable farm, owned by Wilson College. I am finishing my third season here. I have 5 acres to grow on including hoop houses and gardens. I have been farming for 7.5 total years. As of now, I've never had my own farming operation.</p> <p><u>Dorchester County, MD</u> I'm the owner of The Bay Mushrooms. We grow Portabella, Oyster Mushrooms and Shiitake. Our business is small scale and is located in our home in Cambridge MD. I've been growing mushrooms for around 10 years but only 1 commercially. This year my wife and I have been selling fresh mushrooms at the Easton and Cambridge farmers market and we have been selling everything we can produce. We want to expand our business to a bigger location and make it my full time job.</p> <p><u>Adams County, PA</u> Small scale, sustainable vegetable farm, growing on about two acres. Completing its second year in business, and its first year as an LLC. Megan is the primary farmer, with support from her family and work help through working CSA shares. Vegetables are sold through a Community Supported Agriculture program (16 members) and two farmers markets, in Carlisle and Camp Hill.</p>
<p>Lessons Learned:</p>	<p>Offer insights into the lessons learned by the project staff as a result of completing this project. This section is meant to illustrate the positive and negative results and conclusions for the project.</p> <p>This grant had a positive impact that improved participation of specialty crops producers in a program designed to help them as they embark in the beginning stages of their farming career. Overall reactions to survey questions were positive.</p> <p>Regarding meeting goals, continued work to encourage participants to stay in the program is important. However, like any long term time commitment, family needs and the operations needs of the farm at times required people to exit the program before completion. Had all eligible producers who enrolled in the program stayed in until completion, the grant project would have exceeded its goal.</p> <p>By requiring eligible participants to pay out of pocket up front and only reimbursing upon successful completion, no funds from the grant went to funding scholarships for those that did not complete the program.</p>
<p>Contact Person:</p>	<p>Jared Grissinger Division Chief for Economic Development PA Department of Agriculture Phone: 717.705.9513</p>

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Additional Information:	A YouTube video testimonial from a specialty crops producer can be view by clicking on the following link: https://youtu.be/m4_l1tMiMg
Project Title:	Direct Farm Sales Grant Program, Project 12
Project Summary:	<p>The Direct Farm Sales Program was conducted by the Pennsylvania Department of Agriculture’s Bureau of Food Distribution. The Bureau was responsible for managing the application process, determination of grant qualifications, and the execution of monetary awards. The Bureau was also responsible for verification of individual project completion, collecting data pertaining to outreach and reporting information to the Pennsylvania Department of Agriculture Bureau of Markets. A copy of the announcement of the open application period can be found at: http://www.pabulletin.com/secure/data/vol43/43-7/index.html</p> <p>The grants were awarded to farm stands, farmers’ markets, government units, and non-profit organizations that manage and operate farmers’ markets located in Pennsylvania. All grantees completed and submitted an application by the established deadline. The program operated from March 1, 2014 through September 30, 2014.</p> <p>There were a total of 34 applications for the 2014 program with 19 projects being awarded grants. Because of the stringent rules regarding how grant funds could be used only 12 of the applicants awarded grants accepted them and completed their project. Each application was evaluated on the following criteria: The potential to increase consumption of Pennsylvania grown specialty crops, preservation of farmland and promotion of agriculture; the readiness for the applicant to complete the project; potential for the market to assist in revitalizing a community; location of market in an underserved area; potential to provide increased access to farmers’ markets by FMNP program participants; number of people served and the overall performance of the project.</p> <p>The project issue was to provide fresh, locally grown specialty crops to low income Pennsylvania citizens, while expanding the number of outlets, the awareness, use of and sales at farm markets and farm stand to build a positive behavior for eating more nutritious food to reduce the incidence of hunger and under nutrition in Pennsylvania.</p>
Project Approach:	<p>During the open application period as applications are received they are reviewed to ensure that the project has the ability to increase the consumption of specialty crops. Projects not increasing the consumption of specialty crops are immediately rejected and not reviewed by the board. The project board evaluates each application individually to determine how many people the project will benefit from the grant, and if the project will help meet the Direct Farm Sales programs goals and outcomes. Once projects have been selected for funding all budgeted line items are reviewed by the program administrator to ensure that each line item is allowable and will result in the increase consumption of specialty crops. Funds are only dispersed after projects have submitted receipts. Receipts are compared to the approved project budget to ensure only allowable costs are reimbursed. Receipts from mini grants are reviewed to ensure that non specialty crops expenses were not funded. Mini grants provide copies of advertisements placed, recipe cards, which are reviewed to determine if it solely enhanced the competitiveness of specialty crop items. In some cases, non-specialty crop items have indirectly benefited from completion of some of the projects. Cooking classes, recipes and advertisements feature specialty crop items in them may benefit a specific market location because that is where the recipient received the information, but it doesn’t mean that they won’t take the information received and purchase specialty crop items at other markets and retail stores. For example, a cookbook created by Weaver’s Orchard says that it’s from the Weaver’s Orchard, but it doesn’t say you to use</p>

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	<p>only used fruits and vegetables purchased from Weaver’s Orchard it simply says use 4 cups of raspberries.</p> <p>Allowable costs are determined using the specialty crops federal regulations and consulting with Pennsylvania’s Specialty Crops Block grant administrator. The mini project costs cover, advertising and other promotional costs for specialty cost special events at farmers markets, nutrition education materials, and staffing costs for cooking demonstrations.</p> <p>The focus of the majority of the projects this year was on recipes using a wide variety of Specialty Crops and Specialty Crop events held at farmers markets.</p>
<p>Goals and Outcomes Achieved:</p>	<p>While the goal of increasing FMNP checks redeemed from 75% to 80% throughout the state is not know at this time because the program year has not yet been completed. Many of the projects funded did increase the redemption at their market over the previous year. In some cases the amount redeemed was double the previous year.</p> <p>We did not achieve our goal of having 100 applications for the mini grants for this grant period. There were only 34 applications this year with 19 mini projects being awarded funding this year.</p> <p>At the end of 2013, there were 629 specialty crops vendors enrolled in the PA Preferred program. Complete information of 2014 is not yet available.</p> <p>Total program goals</p> <p>Goal 1: To increase the number of outlets in underserved areas Target: Add 5 new markets in underserved areas Benchmark: In 2013 there were 1015 farmers markets and farm stands Performance Measure: Currently there are 1030 farmers markets and farm stands. *Note it is possible that there are additional market locations that have not been reported to us. Also Direct Farm Sales mini grant projects only added 1 new market this year.</p> <p>Goal 2: Creating awareness of Pennsylvania farm stand and farmers’ market outlets Target: We did not include a target for this in our proposal Benchmark: in 2011 market sales of specialty crops was 1,493.3 million pounds Performance measure: We have not been able to locate a source for this information. We will work on finding a new benchmark to measure this goal in the future.</p> <p>Goal 3: Increase child and adult nutrition knowledge and consumption of specialty crops Target: The Target for this year was 10 sites providing nutrition education Benchmark: Without the Direct Farm Sales there are only a couple of markets offering nutrition education to children and adults Performance Measure: The mini grants provided some form of nutrition education at 7 different markets. This included printed information and cooking demonstrations utilizing specialty crops. With the reduced number of projects this year meet this goal was not possible.</p> <p>Goal 4: Increase the FMNP redemption rate to 75% for Pennsylvania produce Target: Increase the FMNP checks redeemed to 75% Benchmark: The FMNP check redemption in 2013 was 70% Performance Measure: The FMNP check redemption in 2014 is currently not available since FMNP checks are</p>

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	<p>still being redeemed at the time this report is being prepared. Final numbers won't be available till January. To date redemption is currently slightly behind 2013 for the same time period.</p> <p>Goal 5: Increase the number of PA Preferred specialty crops producers participating in the program Target: To increase the number of Pa Preferred producers participating in the program. Benchmark: PA Preferred specialty crop vendors in 2013 629. Performance Measure: Final numbers for 2014 are not yet available.</p>
Beneficiaries:	<p>Over 91,500 people benefited from this year's Direct Farm mini grant projects. This number doesn't include the number of farmers and other vendors that benefited directly and indirectly from the Direct Farm sales grant projects. This number is lower than past years due to the small number of projects completed.</p> <p>The number of PA Preferred producers that participated in Direct Farm sales grant projects in 2014 were 22. This number is small due to the small number of projects which accepted the grant funds.</p> <p>There were approximately 2,308 FMNP checks received by farmers benefiting from Direct Farm Sales Grant projects. Since this program ended September 30 and the FMNP doesn't end until November 30th these numbers are not final yearly numbers. Note some of the projects were not able to compile this information since the individual farmers accept the checks and not the person completing the project evaluation report. Some of the projects benefitted specialty crops that are not permitted for purchase with FMNP funds.</p>
Lessons Learned:	<p>The following are lessons learned from the Direct Farm Sales mini Grants.</p> <ol style="list-style-type: none"> 1. Although we only had a few projects this year they showed their creativity in promoting specialty crops at farmers markets that brought new potential customers to the markets. 2. While the open grant period is advertised and posted on our website many possible applicants don't learn of the grant until after the application period has past thus limiting the number of applicants being considered.
Contact Person:	<p>Contact: Sandy Hopple 717-772-2693 shopple@state.pa.us</p>
Project Title:	PA Preferred™, State Branding Program, Project 13
Project Summary:	<p>This project expands upon the existing PA Preferred Program. PA Preferred is Pennsylvania's statewide branding and marketing program for local food producers, processors and businesses. PA Preferred has already served as a benefit to multiple specialty crop farmers and businesses but there is room for improvement and special outreach. This project specifically aims to reach out to and engage those types of farms and businesses.</p> <p>We know that 93% of Pennsylvanians prefer to purchase local products. By promoting the PA Preferred program, locally produced items will be easier for consumers to identify and purchase. Promoting the PA Preferred program has a direct impact on the businesses it celebrates and the consumers that observe its marketing efforts. Local food is proven to boost the economy, strengthen communities and improve the overall health of those that consume it. PA Preferred is the trusted brand for such local food activity and this project is a comprehensive and meaningful way to keep it going and further its reach.</p>
Project Approach:	<p>This project engaged specialty crop producers and other Pennsylvania businesses through a variety of avenues. We developed a comprehensive and interesting social media campaign. The campaign offered us</p>

	<p>multiple outlets to engage with current members therefor building stronger relationships with the companies that were already enrolled in the PA Preferred program. Further, these outlets, such as Facebook and Twitter gave us the opportunity to interact with potential members. We carefully select articles and resources that would be of interest to specialty crop growers. It has also proved to be successful when including a plan to share member information on the PA Preferred social media sites. For example, we included post shares and re-tweets in our social media strategy to build the trust of our members. We believe that by sharing the pride we have in our members we are also building the foundation of our growing community of local growers, producers and processors. Naturally, the entire social media schedule is not prescribed. We recognize the power of real-time posts and tweets; we have included announcements and information from festivals, trade shows and other exciting food focused events that involve our members. These tend to get a noticeable reaction from our social media followers.</p> <p>The staff of the PA Preferred™ program planned and attended numerous trade show events listed below, discounts of which are made available to Specialty Crop Members;</p> <ul style="list-style-type: none"> • The Produce Management Association Fresh Summit Convention which had 18,000 Attendees of which there were two PA Preferred™ potato producer booths, four PA Preferred™ mushroom producer booths and one PA Preferred™ vegetable producer booth. The staff assisted them with their booths and provided introductions to buyers. • The Penn Atlantic Nursery Trade Show which had 3,000 attendees, staff handed out 350 Farm Show Guides and 150 PA Preferred™ pamphlets. • Ag Progress Days at State College which had 45,000 in attendance, staff handed out 700 magnets to increase brand awareness. PA Preferred™ staff invited all members to free booth space and two members chose to come and display their products over the four day event. • The Mid Atlantic Fruit and Vegetable Conference which had 1,800 attendees. Staff handed out 630 informational booklets and 25 new applications for PA Preferred™ membership. • The PA Flavor Show which had 1,500 attendees. The show had a PA Preferred™ marketplace where Specialty Crop vendors were able to display their products and provide samples and sell their products. This enabled members to increase direct sales and have an outlet for their product that is not otherwise available. The PA Preferred™ program only made the marketplace available to food items and did not include beer. • The Pennsylvania Farm Show which had 550,000+ attendees. The PA Preferred™ staff assisted with the Culinary Connection Specialty Crop Day. Specialty Crop Day featured four recipes prepared by the Chef faculty at Harrisburg Area Community College. The Chef featured cabbage casserole, tomato recipes, and fruit and vegetable salsas. The recipe book, schedule and chef bios are available at http://papreferred.com/CulinaryConnection.aspx every year. 12,000 cookbooks were distributed featuring not only Specialty Crops day but Apple and Mushroom Days as well. Promotion of the Culinary Connection included PA Preferred™ signage, educational material and handouts with schedules and chef biographies. All materials were used to support the PA Preferred™ program as well the specialty crop days at the culinary connection. Also the PA Preferred Program supported a portion of the stage and space cost. • The PA Food and Wine Show was attended by PA Preferred staff there were 3,000+ attendees. A PA Preferred™ marketplace was set up with 40 PA Preferred™ member booths. The member booths were companies featuring Specialty Crop Commodities such as syrups, sauces, wines, and pickled items including cucumbers, peppers and olives. <p>Membership applications were also made available and the website and Facebook page were listed as informational resources at each event.</p> <p>The PA Preferred™ program designed and distributed promotional materials intended to support the program and Specialty Crop Members.</p>
Goals and	Economic stimulation and job growth is the top priority across the country. 93% of Pennsylvanians prefer to

<p>Outcomes Achieved:</p>	<p>purchase local specialty crops. By promoting the PA Preferred™ program, Pennsylvanians will be able to find local specialty crop products and contribute to the state’s economy. With this support, Pennsylvania will be able to grow financially and companies will be able to continue job growth. In October 2011, House Bill 1424 was signed into law, making PA Preferred™ the official state branding program for the Commonwealth of Pennsylvania. Now that the program will be lasting, it is important to grow the message of PA Preferred™ and create awareness for the program and specialty crops that are grown here. The objectives of the PA Preferred™ program are to increase specialty crop membership and awareness of what the PA Preferred™ program is and why it is important to be a member. The program will support Specialty Crop Members in their efforts to attend trade show events by assisting the trade shows in finding Specialty Crop Vendors and negotiating deals for lowered vendor fees. Through the program specialty crop PA Preferred™ members will get discounts at trade shows in which they will be able to show their specialty crops and where they can be purchased locally. They will also be listed on the website where local consumers can find them using the zip code; this increases specialty crop sales directly to customers. The website also makes it possible for wholesalers to find local specialty crops to re sell. This benefits the consumer who wants to “buy local” fresh produce as well as the wholesaler who can travel less and procure the same fresh produce. For our specialty crop growers, a special tagline was created: “Grown in PA. It makes a difference.” When it’s grown in PA, it makes a difference in our economy. Purchasing local specialty crops supports Pennsylvania farmers and keeps money close to home. Buying PA Preferred supports local farmers and producers, who in turn support the community. National Agricultural Statistics Service data shows 85% of farm revenue stays in the community, exchanging hands 2.5 times. Shopping with an eye for the PA Preferred logo on specialty crops wherever you shop keeps jobs in Pennsylvania. The keystone and checkmark isn’t just a marketing tool, it’s a visual representation of the 62,000 family farms and many small businesses and companies that keep agriculture the number one industry in Pennsylvania. PA Preferred also works for consumers looking to buy local. More than 90 percent of Pennsylvanians want to purchase and consume local specialty crops, according to a study by St. Joseph’s University. The program gives Pennsylvanians the opportunity to prepare affordable, fresh and nutritious meals for their families using products for which the state has earned worldwide respect for outstanding quality.</p> <p>PA Preferred was able to make significant contributions to Pennsylvania’s specialty crop growers on behalf of the 2012 Block Grant.</p> <p>1. In the duration of the grant, we saw over 19 million impressions of the logo, and over 5,000 radio ads highlighting several of our specialty crop growers. http://www.pacast.com/players/download.asp?video_filename=2015-PAPreferred-Eggs-60-Radio.mp3 http://www.pacast.com/players/download.asp?video_filename=2015-PAPreferred-Fruit-60-Radio.mp3 http://www.pacast.com/players/download.asp?video_filename=2015-PAPreferred-Lumber-60-Radio.mp3 http://www.pacast.com/players/download.asp?video_filename=2015-PAPreferred-Mushrooms-60-Radio.mp3</p> <p>2. Produced over 3,000 double sided multi-season banners for the PA specialty crop producers. Distributed to Farm Markets and Farm Stands with Specialty Crops for Sale.</p>
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	 <p>a. </p>  <p>b. </p> <p>3. Were able to Connect National buyers directly with specialty crop growers at the PMA Fresh Summit.</p> <p>4. Highlighted several growers in our media publications.</p> <p>5. Social Media and Website Platforms were created and have accrued additional members, likes, followers and shares;</p> <p>PA Preferred CURRENT MEMBERS – 1663 PAP Pending Members - 78 Facebook Likes – 15,961 Twitter Followers- 581 Pinterest Followers- 21</p>
<p>Beneficiaries:</p>	<p>Provide a description of the groups and other operations that benefited from the completion of this project’s accomplishments. Clearly state the number of beneficiaries affected by the project’s accomplishments and/or the potential economic impact of the project.</p>
<p>Lessons Learned:</p>	<p>Offer insights into the lessons learned by the project staff as a result of completing this project. This section is meant to illustrate the positive and negative results and conclusions for the project. Describe unexpected outcomes or results that were an effect of implementing this project. One of the goals that we were unable to attain was the development and implementation of a smartphone application. The constraints of a state agency made this goal unattainable. If goals or outcome measures were not achieved, identify and share the lessons learned to help others expedite problem-solving. Lessons learned should draw on positive experiences (i.e., good ideas that improve project efficiency or save money) and negative experiences (i.e., lessons learned about what did not go well and what needs to be changed).</p>
<p>Contact Person:</p>	<p>Ashlee Dugan PA Preferred Coordinator 717-772-3094 adugan@pa.gov</p>

Project Title: Marketing Strategies to Increase Specialty Crop Net Income, Project 14	
Project Summary:	<p>Many beginning and established farmers were growing specialty crops however their profitability was lower than expected and they were seeking ways to increase profits and develop a more viable farming operation. Farmers also sought specialty crops to diversify farm operations and increase profitability. Without increased profitability their farming operation might not survive or at the very least they would seek other crop/commodity options that would create more economic stability for them.</p> <p>“Marketing Strategies for Increased Net Income Utilizing Specialty Crops” assisted farmers by showing them various marketing options that would increase their specialty crop profitability.</p> <p>Producers considered marketing options and adopted those that worked best for their farm operation.</p>
Project Approach:	<p>Brochures and flyers were distributed at the MAVFC and PASA conferences as well as through PA Farm Link’s event calendar as well as partnering organizations. Press releases were supplied to media outlets across Pennsylvania.</p> <p>“My Local Area” and “Potential Profit Calculations” worksheets were developed for the workshops and uploaded to the website. Evaluations and follow up surveys were developed and utilized.</p> <p>103 farmers attended four workshops that were planned and carried out throughout 2013 and 2014.</p> <p>“Direct Marketing in Rural Communities” was presented by Potter County farmer, Alvie Fourness, of Wooleyot Farm. Barb Dietrich of Oley Valley Organics presented “Creative Options to Market Extra Volume and Seconds.” 100% of participants reported the farmer presentations and farmer panel were either very helpful or extremely helpful. Darlene Livingston rounded out the program with “Ensuring a Profit” and supporting documents including “My Local Area and “Potential Profit Calculations.” 97% of farmers reported workshop handouts were beneficial.</p> <p>Farmers utilized the following marketing strategies: 1) social media to tell their story and update consumers regarding crop availability 2) farmer’s markets 3) participate in programs to draw more consumers to the farmer’s market 4) holding farm based events to improve local visibility 5) marketing to wineries 6) expanding season with improved production schedule and high tunnels providing constant supply to consumers.</p> <p>Blair County Conservation District, Lancaster County Farmland Trust, Western PA PASA, Westmoreland County Conservation District all proved to be valuable partners to plan, advertise and carry out the workshops.</p>
Goals and Outcomes Achieved:	<p>103 beginning and established specialty crop farmers from across Pennsylvania attended workshops that focused on direct market options in rural communities, creatively marketing seconds and high yielding specialty crops, ensuring a profit, as well as Q &A farmer panels.</p> <p>96 participants evaluated their local areas and their current farm practices to determine what marketing options and specialty crops would create the best solutions.</p> <p>41 workshop participants utilized financial worksheets to calculate profitable specialty crop marketing</p>

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	<p>options, while 22 participants utilized information presented about social media marketing strategies to chose to market their farm and provide crop availability updates on facebook. 14 specialty crop farmers planned to increased profits through improved their planting schedules, season extension by expanding types of specialty crops grown, 11 specialty crop farmers chose to locate local farmer’s markets and participate in those as a way of increasing their sales and/or serving to promote their farm to area consumers.</p> <p>“My Local Area” and “Potential Profit Calculations” were uploaded to the website and that resource page has seen 268 visits since they were uploaded to the site.</p> <p>Increased profits will result as 88 specialty crop farmers implement the marketing strategies over the upcoming growing seasons. As you can see from the reported outcomes specialty crop farmers have chosen new marketing strategies, implemented improved planting schedules, while others have obtained high tunnels or plan to build a high tunnel to improve the number of production weeks thus providing more available specialty crops to the consumer. This allows the consumer to maintain the habit of purchasing locally from a particular specialty crop producer.</p>
<p>Beneficiaries:</p>	<p>103 beginning and established specialty crop farmers including Veterans, plain sect, female and traditional farmers. They followed traditional to organic production practices and were from all regions of Pennsylvania. Thus this program reached a wide range of farmers who utilized a wide range of production practices.</p>
<p>Lessons Learned:</p>	<p>Even in today’s technology age there is a need for printed materials for certain groups of specialty crop producers, we did not foresee the need to compile the materials in a packet that could be supplied to plain sect producers. We provided handouts at workshops and felt the other best method to distribute was via the resource page on the website. However, we printed materials in a small bound copy for those who do not have regular access to the internet or do not believe in using computer technology.</p> <p>Printed documents were loaded to USB drives to hand out at trade shows for those who prefer an electronic copy.</p> <p>Selling seconds and extra product was thought to be the marketing strategy that would have highest impact that Barb Dietrich shared. However, many chose to adopt her facebook messages stating when crops were available as well as her planting schedule utilizing many different vegetable and small fruit crops to keep the customer coming back to her roadside farm stand.</p> <p>41 producers utilized the financial worksheets to calculate potential profits from market options while 47 others adopted strategies that were not necessarily items they could calculate, but were valid options to improve specialty crop profits.</p>
<p>Contact Person:</p>	<p>Darlene Livingston, Pennsylvania Farm Link</p>
<p>Additional Information:</p>	<p>My local area and Potential Profit Calculations are available at: http://www.pafarmlink.org/start-up-programs.html</p>

<p>Project Title:</p>	<p>Food Safety Outreach on GAP/GHP to Specialty Crop Producers/Packers, Increase the Number of Specialty Crop Producers Participating in GAP/GHP Audits, Project 15</p>
<p>Project Summary:</p>	<p>The initial purpose of this project was to provide outreach on GAP (Good Agricultural practices)/GHP (Good Handling Practices) to specialty crop producers/packers in the Commonwealth of Pennsylvania. The project was designed to make available answers to questions for both the large and small producers/packers throughout the State on how to attain certification under the USDA GAP/GHP program and to increase the number of these producers who request USDA GAP/GHP audits to be completed. This third party audit certification could open up broader markets in which to sell their produce. This project will provide another tool to the targeted specialty crop producers to expand their markets while helping them strive for the best possible practices to keep our food supply safe.</p> <p>This project was needed because of the limited number of producers/packers in the State utilizing the USDA GAP/GHP auditing program .In 2012 a total of 104 companies in Pennsylvania were audited under the USDA GAP/GHP program by the State of Pennsylvania auditors of the estimated 3,000 plus producer/packers of fruits and vegetables in the State. This translates into a large majority of producers having potentially no oversight into their food safety practices.</p> <p>This project is very timely because FDA’s had recently passed the Food Safety Modernization Act which requires FDA to establish science based standards for safe production and harvesting of fruits and vegetables to minimize the risk of serious illness or death. Many of the proposed guidelines mirror the USDA GAP/GHP practices. This will potentially directly impact many Pennsylvania specialty crop producers.</p> <p>Being GAP/GHP certified allows producers/packers to complete in markets that require third party audits for GAP/GHP principals. A growing number of volume food buyers are starting to require third party auditing of the Fruit & Vegetable growers/packers.</p> <p>The Pennsylvania Department of Agriculture’s Bureau of Markets specialty crop grant funds a USDA GAP/GHP cost share program which reimburses producers up to \$400 of the cost of completing a successful GAP/GHP audit. This project allows us to get information about this program directly to the specialty crop producers and answer questions .This program is another incentive for producers to consider GAP/GHP audits.</p>
<p>Project Approach:</p>	<p>On-farm outreach programs were held at a variety of specialty crop producers farms in the state. These programs were held in partnership with Penn State Cooperative extension.</p> <p>These on-farm programs worked very well by making it convenient for the specialty crop producers not to have to travel far from their homes, many of the farms where the outreach was held had already completed a USDA GAP/GHP audit and were willing to share their experience with the attendees and discuss their practices and record keeping with the group.</p> <p>Our auditors were able to explain how to request an audit, the cost involved and how an audit is conducted. Informational materials on GAP/GHP, audits, Guides to minimize Microbial Food Safety Hazards for fresh Fruits & Vegetables, and Cost share program were provided to all participants. The auditor’s</p>

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	<p>presence at the programs eased the farmer’s minds on a Government agency coming on their properties and knowing who they would be dealing with.</p> <p>There were six on-farm outreach events held in Adams, Berks, Lancaster and Montgomery Counties. They were very well received with between 20 and 30 specialty crop farmers in attendance at each program. After each of these events our department received additional inquires on informational material on GAP/GHP and new request for audits were received.</p> <p>In addition to the on-farm outreach programs there were presentations, in the form of power-points and question and answer sessions at the 2013 and 2014 Mid-Atlantic Fruit & Vegetable Convention held in Hershey, Dauphin County Pennsylvania. There was also an informational booth where Auditors handed out information on USDA GAP/GHP Audits. Over 150 producers attend this event each year. Informational material was also provided at the Pennsylvania Farm Bureau’s annual convention and health fair which was also held in Hershey. A Presentation was given to a Co-op of 80 small farm owners, mainly Amish specialty crop producers in Lancaster County, PA. Presentation was also made with York County School district buyers who are looking for ways to improve food safety in their push to buy more locally produced fruits and vegetables.</p> <p>The Penn State Cooperative extension and the specialty crop farmers themselves helped to promote this program. The County Extension by finding farmers willing to host each on-farm outreach program and the specialty crop farmers by allowing us to come on their property and in addition have continued to spread their knowledge of GAP/GHP practices and have passed on information about our Department and our role in USDA GAP/GHP audits.</p>
<p>Goals and Outcomes Achieved:</p>	<p>The on-farm outreach programs along with the meeting style outreach were all designed to: provided information in the form of handouts and talks about USDA GAP/GHP audits and some insight into FSMA directly to specialty crop producers and other stakeholders; connect with the specialty crop producers by familiarize them with the auditors and the request process to ease their concerns ; provide information about cost of audits and the States’ cost share program and to make sure our auditors maintain the needed training to keep them current so as to be able to provide auditing services throughout the state. The project supported us sending a new employee to USDA GAP/GHP training to increase the number of trained auditors in the State and also covered the cost of the continuing education required of our auditors to maintain their certification through USDA.</p> <p>The goal was to increase the number of specialty crop producers that were requesting USDA GAP/GHP audits to be performed by 12%. This goal was achieved by the end of the first project year. The goal was amended to increase the number by an additional 3% for a total of 15% increase in audits by the end of the project. The year prior to the start of the project (2012) the number of USDA GAP/GHP audits that were performed in the State of Pennsylvania by our Department was 108. The number of audits performed in 2013 rose to 125 which is a 15.74% increase. For the first 9 months in 2014, 109 audits have been performed with the projection of 129 being completed by the end of the calendar year which is a 3% increase in audits over 2013 and overall increase in audits since the start of the project of 19.44%. The goal of increasing the number of USDA GAP/GHP audits performed by our auditors was reached and exceeded</p>

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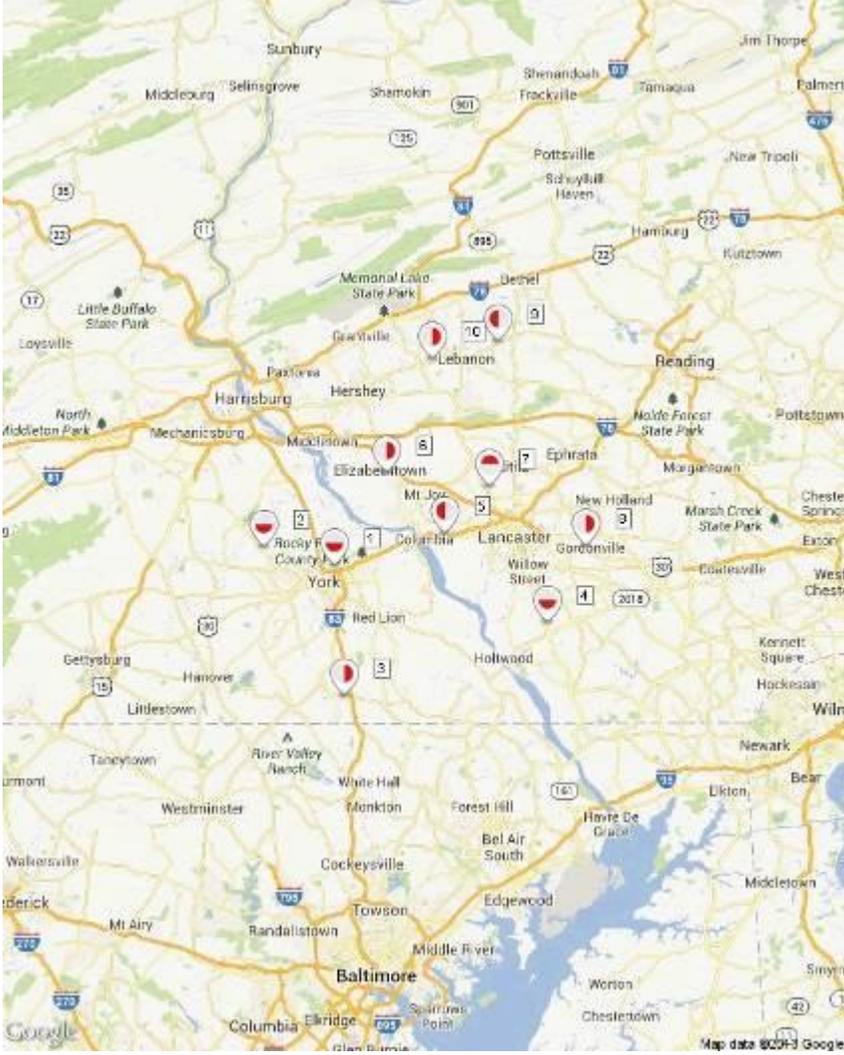
	<p>our expectations.</p> <p>In addition to the number of USDA GAP/GHP audits increasing, the number of specialty crop farmers calling the Department to obtain information on audits has increased steadily. Many of the people calling either attended an outreach event or friends had attended and passed on the information.</p>
<p>Beneficiaries:</p>	<p>There are many beneficiaries to this project. The specialty crop producers have benefited by: having the opportunity to gain knowledge about USDA GAP/GHP practices and audits thus learning areas they can improve their food safety practices and understand some of the principles FSMA is based on; given the opportunity to take part in the cost share program; and being able to compete in markets requiring third party audits. The consumers who buy the produce have benefited by having a more food safety conscious group of producers providing their food and the volume food buyers' benefit by having a larger pool of specialty crop producers who will meet their third party auditing requirements. The benefits to the specialty crop producers and the volume food buyers are both economically impact. The consumers the more direct benefit is more of the assurance of the safest food supply possible.</p>
<p>Lessons Learned:</p>	<p>From holding these outreach programs we learned a lot. We found that the specialty crop farmers were eager to have information on GAP/GHP practices and how to improve things on their farms. Many appreciated the written materials that were handed out since some of information is hard to obtain or must be obtained on the internet and at several of the outreach events Amish farmers, who don't always use the internet were in attendance. We discovered by performing these outreaches the amount of misinformation about GAP/GHP principals and the USDA audits themselves was larger than expected. We found many famers were skeptical about the whole idea of an agent of the government coming on their property and evaluating their GAP/GHP practices but the programs eased their fears and misconceptions and shed a little more light on GAP/GHP and FSMA principles. Many seemed willing to have State officials on their properties as opposed to Federal officials. We found that the on-farm and the classroom style setting both worked very well with the targeted audiences. There is still room for improvement by providing web based informational videos on the USDA GAP/GHP auditing process we could reach another segment of the specialty crop producers and packers.</p> <p>Many of the farmers who attend the outreach events indicated that volume food buyers where they were selling their produce were starting to require third party auditing and that they were trying to prepare. Others indicated they had markets they wanted to sell in but had to have third party audits to be able to sell to those markets. Many in attendance wanted to see how they could make improvements to their practices on their farms and didn't plan on having a third party audit performed. These on farm events were all very well received and helped us in meeting our project goals.</p> <p>We originally had planned to have booths set up at various farmers markets throughout the state- but we quickly changed that to having classroom style meetings and booths at other events. This decision was made to insure the most cost effective use of the grant monies and achieving the project goals. Many of the farmers markets are held on weekends which would incur additional cost for staffing, another was that the markets were run during the summer which is the busiest time for both our auditors and the produce farmers themselves. Farmers participating in these markets would have very little time to learn about</p>

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	USDA GAP/GHP audits.
Contact Person:	Judy Martin Assistant Director Bureau of Food Safety & Laboratory Services, PA Department of Agriculture 717-787-4315 judmartin@pa.gov
Project Title:	Fall 2013 Farm Market Promotional Campaign Expansion, Project 16
Project Summary:	<p>This project expanded the reach of the existing fall media campaign. The 2011 campaign was the program’s first foray into a consumer targeted media campaign to encourage consumers to seek out PA farm markets to purchase locally grown apples. The project utilized online and outdoor advertising to increase consumption of Pennsylvania apples and apple products.</p> <p>Capitalizing on the “buy local” trend, the campaign helped consumers discover Pennsylvania farm markets as a way to buy fresh, healthy food while also supporting their local economy, local farms, and the environment. During the fall harvest period, farm markets offer a wide variety of fresh apples and apple products, along with a large selection of other produce and specialty items. Many markets offer unique activities and educational opportunities making them great family destinations. By expanding this campaign into Northern Maryland, we targeted areas within an hour drive to a large concentration of Farm Markets in Southern Pennsylvania, with the goal of attracting visitors from out of state.</p> <p>Direct farm marketers had not been benefitting from the programs promotional efforts due to lack of funding for consumer awareness. This project focused on both raising awareness and helping connect consumers with their local farm markets with the goal of ultimately increasing profits for direct marketers.</p> <p>The timeliness of this project was critical as statistics show conversion of acreage from processing to fresh production from 2008--- 2012, which is projected to continue due to higher margins from fresh fruit. This campaign began at a time that the yields from these plantings would have first been available for consumer sales.</p>
Project Approach:	<p>he main objectives of this project were to attempt an expansion of a successful in-state consumer marketing campaign across state lines into Northern Maryland, and to expand the online portion of the campaign to include targeted websites that may help us better reach our target audiences both inside and outside state lines.</p> <p>The overall goals of the media campaign were to promote consumer awareness of Pennsylvania Farm Markets and to promote Pennsylvania Apples and apple products. The campaign was targeted towards major apple growing regions of Pennsylvania as well as large population centers. Expansion into media markets just over the Pennsylvania border into Maryland allowed us to attract visitors to the Commonwealth’s largest apple growing regions: Adams, Franklin, York, and Bedford Counties. All are located along the Pennsylvania-Maryland Border. An outdoor billboard campaign was accomplished in these regions.</p> <p>Direct sales at a farm market are one of the best ways for apple growers to maximize profits. Growers can market their products at a fair value directly to consumers and eliminate costs such as packing, storage, transportation, and/or brokerage fees. This also means that the consumer usually has access to a fresher product. The PAMP worked to promote the direct sales of apples through a buy fresh buy local billboard and media campaign.</p>

	<p>Promoting Pennsylvania’s Farm Markets makes good sense in today’s consumer climate. Two strong continuing consumer trends are “go green” and “buy local”. Shopping at farm markets can offer consumers an opportunity to do both at once. Consumers can get the freshest selection of fruits, vegetables and a variety of specialty products, most of which are grown right on the premises. Because most products are not packaged or transported, there is a lot less energy expended from farm to plate, making farm markets an environmentally friendly retail outlet.</p> <p>Shopping for fresh fruits and vegetables at farm markets will also help support and maintain a healthy lifestyle. The USDA recommends up to nine servings of fruits and vegetables in our daily diets. Most farm markets offer a wide array of specialty produce that will allow families plenty of choices to meet their dietary requirements.</p> <p>This project suffered several unexpected developments over the course of planning and implementation, which greatly impacted its outcomes. Since then, a new Executive Director has been hired and the contract with the ad agency has been terminated.</p> <p>Grant funding was used for a billboard campaign expansion into the Northern Maryland market due to its proximity to Adams County—home to the greatest number of orchards in any PA county. This was specifically an expansion of the Find Fresh multi---media campaign, which commenced in 2012 and included radio and online ad components. The new messaging focused on Pick PA Apples with a buy local theme.</p>
<p>Goals and Outcomes Achieved:</p>	<p>The PAMP program ran a media campaign including outdoor and online marketing. The program was targeted to PA regions with a high concentration of member orchards with messaging focused on choosing local apples (Pick PA Apples). This messaging was selected to focus on consumer awareness of the apple industry as a whole, rather than just direct marketers. While the billboards do include the PA Apple Marketing Program’s URL, the intent was not to create a direct call to action to the website.</p> <p>The billboard campaign will not wrap until October 31, 2013 but initial outcomes are proving beneficial. The proposal originally identified a desire to increase Y/Y web traffic by 200%. This has not happened and was not anticipated for a number of reasons: 1) the multimedia elements of the 2012 campaign that contributed to increased web traffic were not continued after termination of the ad agency, 2) SEO was in place in 2012 and is has been suspended in 2013 until accessibility updates can be made to the site to make SEO more effective 3) one of the top referral sources in 2012 was from a radio station website, but radio advertising was suspended in 2013.</p> <p>The campaign is yielding measurable results. Comparing the current campaign period (August 1 – October 31, 2013 (for the purposes of reporting August 1 – September 25, 2013, as the campaign is still active) against the previous three---month period (baseline), several possible outcomes have been achieved: 1) the market search section of PennsylvaniaApples.com is up 400% 2) bounce rates have declined 3) time on site has improved and 4) visits and unique visits have increased. Additionally, direct traffic has increased suggesting consumers are coming to the site after seeing a billboard.</p> <p>The following metrics and supporting documentation has been included:</p> <p>1) Multiple Google analytics reports to show positive outcomes in comparison to baseline period as well as Y/Y Google analytics (not favorable as addressed above).</p>

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	2) Proof---of---performance (with photos) reports from each contracted billboard agency (Trone, Lamar, Keggereis). Available upon request.																
Beneficiaries:	Beneficiaries of this program were the PA Apple Marketing’s 267 grower members. This awareness campaign directed consumers to find farm markets where they could purchase Pennsylvania apples and processed apple products, thus benefiting PA apple growers.																
Lessons Learned:	This project was outlined by the previous Executive Director with the direction of an external communications agency, therefore implementation and outcomes varied greatly from the original intentions for the program																
Contact Person:	Julie Bancroft 717.783.5418 Julie@PennsylvaniaApples.org																
Additional Information:	<p>PA Apple - York, Lancaster, Lebanon Map #1</p>  <p>PA Apple - York, Lancaster, Lebanon</p> <table border="1"> <thead> <tr> <th>Label</th> <th>Panel#</th> <th>TAB ID</th> <th>Media/Style</th> <th>Facing</th> <th>H x W</th> <th>*Weekly Impressions</th> <th>Illum.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21056</td> <td>30497777</td> <td>Poster /</td> <td>North</td> <td>10' 6" x 22'</td> <td>119393</td> <td>YES</td> </tr> </tbody> </table>	Label	Panel#	TAB ID	Media/Style	Facing	H x W	*Weekly Impressions	Illum.	1	21056	30497777	Poster /	North	10' 6" x 22'	119393	YES
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Location: 83 BYPASS S/O N. SHERMAN LOC 2 #1 F/N
 2 22119 10809 Poster / Retro North 10' 6" x 22' 9" 27595 YES
 Location: 74N .8MI N/DOVER OPP GEORGE ST W/S F/N
 3 23078 10790 Poster / Retro West 10' 6" x 22' 9" 14666 YES
 Location: 851 CONSTITUTION AVE W/O SUSQ TRAIL FW
 4 21151 10681 Poster / Retro North 10' 6" x 22' 9" 15852 NO
 Location: 272 10 MI S/O LANCASTER E/S F/N
 5 25012 10419 Poster / Retro East 10' 6" x 22' 9" 34891 YES
 Location: RT 462W E/O COLUMBIA S/S F/E
 6 62009 10486 Poster / Retro West 10' 6" x 22' 9" 28132 YES
 Location: RT 230 E/O ELIZABETHTOWN NS #1 FW
 7 62074 10500 Poster / Retro South 10' 6" x 22' 9" 34043 YES
 Location: 72N .9 MI N/O E PETERSBURG E/S #3 F/S
 8 64031 10582 Poster / Retro West 10' 6" x 22' 9" 58988 YES
 Location: 30E 4.8 MI E/O 462 N/S LOC#2#1 F/W
 9 26016 10755 Poster / Retro East 10' 6" x 22' 9" 55429 YES
 Location: 422E 3.7 MI E/O 11TH AVE NS LOC #1 #2 FE
 10 26053 11311 Poster / Retro West 10' 6" x 22' 9" 47456 YES

 Location: 422W 2.6 MI W/O 16TH ST ANNVILLE N/S F/W

Total Weekly Impressions: 436445



Project Summary

Project Title:	Pennsylvania Produce Promotion, Project 17
Project Summary:	Most fresh vegetables are available year-around in Pennsylvania supermarkets. The result is that many Pennsylvania consumers, especially those with no familiarity with agricultural seasons, are not aware when local produce crops are in season and thus fail to take full advantage of the availability of local Pennsylvania produce in their supermarkets, farmers’ markets or roadside farm markets. Thus it would be beneficial to Pennsylvania produce growers to make the public more aware of when local produce is in season and to highlight the peak season of local produce during the month of August. The Vegetable Marketing and Research Program has celebrated August as Pennsylvania Produce Month since 2006. The Produce Month promotion has the potential to be much more effective if there is a paid radio advertising component or a

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	<p>social media component to the promotion to raise consumer awareness of the peak of the produce season. Point-of-purchase materials and press relations are also important components of making this promotion effective</p> <p>Previous SCBG funding provided for support of this month-long promotion</p>
<p>Project Approach:</p>	<p><u>2013</u></p> <p>The Program has been conducting the “August is Pennsylvania Produce Month” promotion since 2006. In 2012, supplies of the point-of-purchase items designed for this this promotion had been exhausted. To reflect changes in the state’s agricultural promotional logos, these point-of-purchase items - posters and price cards - were redesigned (see designs under Additional Information section) and an initial supply for the 2013 and 2014 was printed.</p> <p>Produce Month point-of-purchase materials were shipped to 61 growers who ordered 74 kits consisting of two large posters and a pack of 20 price cards or additional small posters. Six small posters were sent to about 310 growers who ordered non-Produce-Month point-of-purchase materials. Unfortunately, these numbers represents a drop in the number of growers ordering the extra materials compared to 2012 when 77 growers ordered the kits and about 370 received the six smaller posters. The decrease in the number receiving the smaller posters is likely a reflection of more general point-of-purchase orders being shipped in 2012 for various reasons, one them being that the order forms were mailed later in 2013 than in 2012. Over 350 kits containing one large poster, six small posters and 20 price cards were shipped to the produce auctions in the state to be sold for the nominal price of \$2. This represents a slight increase over 2012. It is unknown how many of these were actually sold. In addition, materials for about 236 stores were shipped to Acme Markets, Associated Wholesalers (Shurfine Stores), Karn’s Quality Foods, ShopRite Stores, Redners Warehouse Markets and Lancaster Family-Owned Stores. This represents a slight decrease from 2012 when materials were supplied for 237 stores. In 2012, Supervalu asked for materials for 120 stores but did not do so in 2013 but Acme Markets and ShopRite Stores who did not participate in 2012 asked for materials for 117 stores in 2013.</p> <p>The press release issued by the Program on “August is Pennsylvania Produce Month” or at least some mention of Pennsylvania Produce Month was carried in 24 articles in newspapers or online sites reaching 1,197,823 readers or viewers. This represents a significant drop from 2012 when 24 articles or online sites reached 8,292,000 persons. In 2012, the Department of Agriculture did a press event for PA Produce Month and circulated its own press release which was picked up by major news media in both Philadelphia and Pittsburgh. We were not fortunate enough to be included in these large circulation publications or sites in 2013. The five-year average for PA Produce Month coverage for 2006 to 2008 and 2011 (circulation figures were not documented in 2009 and 2010) was 28 articles reaching 1.47 million. Thus 2013 figures were behind this but still within the range. Circulation, which was tracked using a clipping service, is greatly influenced by just one article in a major metropolian publication.</p> <p>The Program purchased radio advertising with \$10,000 of the funds from this project on seventy-five radio stations across the state by sponsoring traffic reports in the Philadelphia, Pittsburgh, Wilkes-Barre/Scranton, Erie, Allentown/Bethlehem, Harrisburg, York, Lancaster, and Altoona media markets. Most of these ads ran during the last week of July and first week of August. The texts of the ads were as follows:</p> <p>10-second version - August is PA Produce Month and fresh, local veggies are in abundant supply at a nearby farmers market, roadside market or supermarket. For tasty veggie recipes, visit paveggies.org.</p> <p>15-second version - August is PA Produce Month and PA Vegetables are at their best right now. Why not stop tonight at a nearby farmers market, roadside market or supermarket to pick up some fresh</p>

locally grown sweet corn, tomatoes, peppers, or cantaloupes? For tasty veggie recipes, visit www.paveggies.org

2014

In the spring of 2014, the Program undertook an evaluation of the Program’s promotion efforts by Jeff Manning, a nationally known marketing consultant who has worked with various agricultural promotion efforts, most notably the “Got Milk?” dairy promotion. Mr. Manning recommended that the Program eliminate several of its promotion efforts, including the general press relations effort and vegetable recipe contest, in order to concentrate its resources on its August promotion. Original plans called for the Program to purchase \$10,000 worth of radio advertising with the SCBG funds in 2014. The Program submitted a request to hold those funds to be used for the August 2015 promotion when the Program implemented changes to its August promotion month. Meanwhile, the other “traditional” parts of the Produce Month promotion were continued for 2014 without funding from the grant.

The Produce Month point-of-purchase materials were shipped to 65 growers who ordered 82 kits consisting of two large posters and a pack of 20 price cards. Six small posters were sent to about 337 growers who ordered non-Produce-Month point-of-purchase materials. These numbers represent a disappointing decrease from previous years. The decrease in the number receiving the smaller posters is a reflection of less general point-of-purchase orders being shipped in 2014 compared to other years even though the order forms were mailed a little earlier than some previous years. The Program shipped 325 kits containing one large poster, six small posters and 20 price cards to the produce auctions in the state to be sold for the nominal price of \$2. This represents a slight decrease from 2012 and 2013. It is unknown how many of these were actually sold but it was apparent that not all the kits shipped in previous years were sold by the auctions. In addition, materials for 361 stores were shipped to Acme Markets, SuperValu, Four Seasons Produce, Karn’s Quality Foods, ShopRite Stores, Redners Warehouse Markets and Lancaster Family-Owned Stores. This represents a significant increase from 2013 and 2012 when materials were supplied to 236 and 237 stores respectively. While Associated Wholesalers did not participate in 2014 like they did in 2013 and 2012 (they were facing financial difficulties), Supervalu participated again in 2014 unlike 2013. Acme Markets and Shoprite had more stores participating in 2014 than in 2013 and Four Seasons Produce distributed 40 kits in 2014. The 361 supermarkets participating in 2014 was the highest number of participating supermarkets in the previous five years.

The press release on August is Pennsylvania Produce Month or at least some mention of Pennsylvania Produce Month was carried in 19 articles in newspapers or online sites reaching 382,265 readers or viewers. The fact that the Program had not been involved with the press prior to the Produce Month release in 2014 may have been part of the reason coverage was not as good in 2014 as previous years.

2015

Instead of doing paid advertising, it was determined that it would be more cost effective to develop a social media campaign to promote Pennsylvania vegetables during August. The Program contracted with Penn State Extension for this phase of the promotion with some of the SCBG funds. Monica Ganser, the extension program assistant assigned to the project prepared the following report on their work:

August is PA Produce Month (PA Veggies) Social Media Campaign pages were started in mid-July, to prepare them for August. The pages include Facebook, Twitter, Instagram and Pinterest. Facebook took the role of the most popular site for all of the different markets, farms, customers and potential customers.

PA Produce Month Social Media Sites:

- www.facebook.com/PAVeggies
- www.twitter.com/PAVeggies
- www.pinterest.com/PAVeggies
- www.instagram.com/PAVeggies

Once August ended, it was decided to keep the different social media pages going and we believe it will be beneficial to continue throughout the year. By doing this it will keep the followers engaged and bring more followers and/or potential customers to the pages.

As of September 7, 2015 there are 648 likes on the Facebook page, which has made it the top site for our campaign. Throughout the campaign it has been apparent that Facebook is the most used social media site, with more farms and customers being a part of it. The first week of August and the last week of August, I had promotional ads out at \$5.00 a day, which is 4-17 likes per day. This doesn't include the likes that we had gotten from shares and markets informing their customers about the page. The promotions were geared towards both men and women ages 18-65 years old and located for just Pennsylvania. In the last week of promotion we had gotten 265 likes with a weekly total reach of 2,258; 78% of our fans are women and 21% of our fans are men. (See additional statistics in Additional Information section.) We got a good following of markets and farms that would share our information, share their pictures on the site and would use the hashtag (#PAProduceMonth). The phrase "When I Think August" and the photos to go along with them became a nice touch to the campaign. After making a few for some markets, they were able to share them with their followers, families and customers. There were a few who even shared their own pictures and added the phrase onto their pictures.

Twitter has 19 followers and our page is following 51. After researching the different farms, markets, CSAs etc. that are part of Twitter, I realized that a lot of them are not active on Twitter. They have their Facebook pages linked to the site and have the posts the same as their Facebook. Twitter seemed to become one of the more difficult pages to keep up to date.

Instagram, we are following 11 and have 9 followers. This is a page that we will need to promote a little more, to get more pictures of the different farms that we will be able to share. Instagram can only be updated on the phone, so this became a little difficult to update.

Pinterest has 4 followers and is following 6. There are 123 pins and 8 boards started, this has become a popular place to find some of the Recipes from the recipe contest and there have been 828 monthly viewers with 25 a day. The audience that is viewing our pins consists of 697 women.

In 2015, the Program used SCBG funds to revise the Program's website, www.paveggies.org, which focuses on Produce Month. An updated directory of farm markets, farmers' markets and CSA operations was compiled using information submitted by the Program's growers. In addition, a separate directory of growers selling their vegetable on a wholesale level was compiled, replacing a previous directory that was very outdated. The entire website was transferred to a different platform to allow easier updates in the future and to allow the recipes (and other features) on the website to be linked to individually in Facebook posts and other references.

For the 2015 "August is PA Produce Month" promotion, the Program again distributed the Produce Month point-of-purchase materials. SCBG funds were used to print a new supply of these materials as the previous supplies had been depleted. Enough were printed to hopefully cover the promotion for both 2015 and 2016. The materials were shipped to 50 growers who ordered 64 kits consisting of two large posters and a pack of 20 price cards. Six small posters were sent to about 244 growers who ordered non-Produce-

	<p>Month point-of-purchase materials. These numbers represent a decrease from previous years. The decrease in the number receiving the smaller posters is due to less general point-of-purchase orders being shipped. The reason for this is unknown. The Program shipped 225 kits containing one large poster, six small posters and 20 price cards to the produce auctions in the state to be sold for the nominal price of \$2. This represents a significant decrease over previous years. This year the Program asked the auctions to indicate about how many kits they thought they could use. Several still had enough on hand from previous years and so none were shipped to those auctions this year. Others failed to respond so in most cases the number of kits shipped to non-responding auctions was five less than the number shipped last year. Like other years, it is unknown how many of these auction kits were actually sold. In addition, materials for 243 stores were shipped to SuperValu, Four Seasons Produce, Karn’s Quality Foods, ShopRite Stores, Redners Warehouse Markets and Lancaster Family-Owned Stores. This represents a decrease from last year because the Program received no response from Acme Markets which counted for 110 additional stores in 2014.</p> <p>The Program’s press release on August is Pennsylvania Produce Month or at least some mention of Pennsylvania Produce Month was carried in 32 articles in newspapers or online sites reaching 864,000 readers or viewers. The Governor issued a proclamation for August as Pennsylvania Produce Month which state Secretary of Agriculture Russell Redding presented at a press conference at the Culp Street Farmers’ Market in Gettysburg on August 12. The Department of Agriculture press office issued a press release leading off with mention of the Produce Month proclamation but focusing on Secretary Redding’s remarks which covered several topics, including the farmers’ market itself and agricultural workforce development. Eleven articles based on this event or press release were published reaching an additional 142,000 readers. Thus the total number of Produce Month mentions would be 43 articles reaching one million readers. This compares favorably with last year’s 19 articles reaching 382,000 readers and is only slightly less than 2013 when 24 articles or online sites reached 1,198,000 readers or viewers. It is far behind 2012 when 24 articles or online sites reached 8,292,000 persons.</p>																														
<p>Goals and Outcomes Achieved:</p>	<p>As just stated, the goal of the entire project is to increase consumer awareness of the availability of local produce and ultimately increase, or at the very least maintain, sales of local produce over current levels. The National Agricultural Statistics Service (NASS) publishes an annual estimate of cash receipts for vegetable crops. The five-year average for this estimate (for the years 2008 to 2012 – the most current data available) is \$124 million (vegetable production minus potato production because the Program does not promote potatoes). The goal would be to have this five-year average increase by 5% each year. Unfortunately, this number for 2013 and subsequent has not yet been published.</p> <p>In the Program’s annual grower survey beginning in 2010, the Program has asked growers to roughly estimate their sense of their sales compared to the previous year. The survey question gives them the choice whether their sales volume (compared to the previous year) a) decreased; b) remained the same; c) increased 1 to 5% or d) increased 5% or more. These survey results are still being compiled for 2015 but the results for 2013 and 2014 are shown below. The goal is to have a majority of the growers report increased sales (answers c or d) over the previous year. This goal appears to be met in recent years although this data is, by its nature, subjective.</p> <p style="text-align: center;">Compared to the year before, has your sales volume:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;">2014</th> <th style="text-align: center;">2013</th> <th style="text-align: center;">2012</th> <th style="text-align: center;">2011</th> <th style="text-align: center;">2010</th> </tr> </thead> <tbody> <tr> <td>- decreased</td> <td style="text-align: center;">17%</td> <td style="text-align: center;">17%</td> <td style="text-align: center;">22%</td> <td style="text-align: center;">39%</td> <td style="text-align: center;">21%</td> </tr> <tr> <td>- remained about the same</td> <td style="text-align: center;">37%</td> <td style="text-align: center;">35%</td> <td style="text-align: center;">38%</td> <td style="text-align: center;">30%</td> <td style="text-align: center;">37%</td> </tr> <tr> <td>- increased 1 to 5%</td> <td style="text-align: center;">28%</td> <td style="text-align: center;">23%</td> <td style="text-align: center;">19%</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">23%</td> </tr> <tr> <td>- increased 5% or more</td> <td style="text-align: center;">18%</td> <td style="text-align: center;">25%</td> <td style="text-align: center;">21%</td> <td style="text-align: center;">11%</td> <td style="text-align: center;">14%</td> </tr> </tbody> </table>		2014	2013	2012	2011	2010	- decreased	17%	17%	22%	39%	21%	- remained about the same	37%	35%	38%	30%	37%	- increased 1 to 5%	28%	23%	19%	20%	23%	- increased 5% or more	18%	25%	21%	11%	14%
	2014	2013	2012	2011	2010																										
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- increased 1 to 5%	28%	23%	19%	20%	23%																										
- increased 5% or more	18%	25%	21%	11%	14%																										

Did you make major improvements or changes to your operation that you believe significantly increased your sales (built new market facilities, attended an additional farmers market, started a CSA, etc.)

	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
- yes	16%	16%	20%	12%	12%

Using the grower survey data and the NASS data are both problematic, however, because many other factors besides the Program’s promotion effort enter into these measures of growth in the industry. The grower survey data is subjective and only based on a relatively small sample (usually just over 200) of the total number of growers. We do not believe most growers would be willing to provide the Program with actual sales figures to compare from year to year. Certainly the weather has significant effect on production levels and prices each year. The general economic situation plays a role in inflation and buying patterns. The current interest in buying food locally is a great advantage to the Pennsylvania vegetable industry that will positively influence sales numbers regardless of the Program’s promotion efforts. Hopefully the Program’s efforts will enhance that positive effect.

The number of growers and markets that choose to participate in the Pennsylvania Produce Month promotion is the easiest method to quantify the participation in the effort. The following table maps some of statistics. Unfortunately, we have seen the number of growers ordering the actual kits decrease although we are still reaching quite a few markets though the small posters sent to all grower ordering general point-of-purchase materials and an unknown number though the kits sent to the auctions.

<u>PA Produce Month Statistics</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Growers Ordering Kits	125	97	91	77	61	65	50
Number of Kits Ordered			130	124	74	82	64
Growers Receiving Small Posters			350	420	310	337	244
Kits Shipped to Auctions	210	265	280	340	355	325	225
Supermarkets Requesting Posters	404	272	251	237	236	361	243
Produce Month Articles			14	24	24	19	43
Circulation Reached (1,000s)			384	8,292	1.197	382	1,006

However, our ultimate goal is to reach consumers with the message of the abundant supply of Pennsylvania vegetables available during August. Thus the outreach of the press relations efforts for Produce Month, the paid advertising by radio and social media audience are important measures. The effectiveness of the press relations effort for Produce Month can be measured by the clipping service. The goal was to at least secure placement of 28 articles in newspapers with a combined readership of at least 1.47 million persons. This goal represented a 5% increase over the five-year average for 2006 to 2008 and 2011 of the Program’s Produce Month press relations effort (a clipping service was not retained in 2009 and 2010 to measure these parameters because of budget restraints). The 2012 data was not available when the goal was set and would have resulted in a much higher goal.

<u>PA Produce Press Relations Statistics</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Produce Month Articles	14	24	24	19	43
Circulation Reached (1,000s)	384	8,292	1.197	382	1,006

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	<p>The goal was not totally reached in any of the three years of the project even though the goal for the number of articles was reached in 2015. There really is no known reason for the significant drop in the number of articles and readership for 2014 other than, as noted above, the Program discontinued its general press relations effort that year resulting in less contact between the Program and editors. While that is one possible explanation, that was also the situation in 2015 when the number of articles and readership rebounded.</p> <p>The outreach of Produce Month radio advertising would be determined by listener/viewership ratings provided by the advertising network and is primarily determined by the amount of advertising purchased. The goal was to achieve at least 3 million gross impressions and a reach of 1.5 million through radio advertising.</p> <p>In 2013 when paid radio advertising was used, the ads created an estimated 970,000 gross impressions. A different advertising company was used for some of the advertising in 2014 compared to previous years and it is difficult to compare the statistics provided. The goal of 3 million gross impressions was set in the original proposal that also budgeted \$20,500 each year for the advertising. The goal should have been revised down to at least half that number since the final project budget only allowed for \$10,000 annually for the advertising. Regardless, 2013 results were still short of 1.5 million impressions. Statewide advertising options with a budget of \$10,000 are limited but the Program is trying to maximize the effectiveness of this promotion effort with the budget available.</p> <p>In the 2015 when a social media campaign replaced the radio advertising campaign, the result was somewhat disappointing in reaching only a few thousand persons – a long way from 3 million impressions envisioned with radio advertising. While it can be argued that a Facebook “like” is probably worth more than many radio impressions as it represents a deliberate and positive response to the Program’s message, how to compare that to the original goal is not known.</p>
<p>Beneficiaries:</p>	<p>This project is designed to benefit the 3,500 produce growers of Pennsylvania by increasing the awareness of when local produce is available. Most consumers have a positive perception of local produce and thus would be more inclined to purchase more local produce if its availability is aggressively promoted. This should result in increased sales for Pennsylvania growers.</p> <p>The increased sales of local produce should also benefit the millions of consumers in the state not only by encouraging their increased consumption of fresher, healthier foods, but by supporting a stronger local agricultural economy and therefore a stronger local general economy. Hopefully the thousands of persons (as noted above) reached over the past three years with the press relations, advertising and social media efforts were positively impacted by raising their awareness of the availability of local produce during the month of August. The Program’s website, especially as updated in 2015, and which was publicized in the ad, press relations and social media efforts, provides consumers with recipes and markets/growers where they can purchase fresh, local Pennsylvania vegetables.</p>
<p>Lessons Learned:</p>	<p>In the first year of the project, the Program used radio advertising in the form of sponsorship of traffic reports in urban areas across the state, targeted whenever possible for morning or evening drive times. This had the advantage of reaching consumers when they might be considering their evening menu plans and encouraging them to stop at a farm market or farmer’s market for fresh, local vegetables. It is costly and only available in certain parts of the state, and the message is potentially lost in the vast number of messages radio listeners are bombarded with.</p>

Social media is becoming the source of information for more and more consumers. We anticipated spending more on the social media campaign than what we did. While in one sense it was less costly, whether it actually effectively reached as many people is unknown. It is not likely. However, we do feel it is a component of our August is PA Produce Month promotion that we must maintain and increase going forward. For the foreseeable future, social media will continue to be one of the best ways to reach a certain portion of consumers. Ms. Ganser, who executed the social media campaign for the Program, reported the following issues and suggestions for the future.

Issues

Unfortunately there were a few struggles through the month that need to be fixed for the next year. The amount of time to prepare for the campaign and promote to the different markets, farms, CSAs etc. made for a slow start in getting followers each week. With the limited amount of time, the ideas of different coupons and promotions to have between markets did not happen. There was a few markets that had August is PA Produce Month specials at their stands.

Our featured farms each week became difficult to accomplish. With only one person researching (Google/Facebook) and posting to each of the sites, it became a lot of work. This ended up in not all of the farms, markets and CSAs being featured in the month. I was unable to post all the time on the days that I don't work at Penn State, and ended up posting too much on the days that I could.

Suggestions for the Future

There are a few suggestions for the next year; I believe that sending out a questionnaire to all of the growers in the next year if they want to be featured on the different social media sites and to have a "Why they Farm" description. This would include having them send pictures of their market, farm, CSA etc. so that it is not as difficult to get information out to all those interested about the growers and have it say exactly what they would like to get across to the customers/potential customers. It would also be nice to hear from our growers, what they thought about the campaign and if they have any ideas for the next year.

For next year's posters and press release that are sent out to the growers, if there could be the Facebook, Twitter, Instagram and Pinterest symbols on them. This will show those who see the posters etc. that we have different sites that they can find out more information about the month.

At the end of the month I figured out how to do scheduled posts, for next year I plan on making most of the posts scheduled. This will help in the amount of time that we have and on days that I may be unable to post. Along with making a calendar of what needs to post and on what days they will be posted. There is also a website, Hootsuite, which I will be able to use. This will allow me to stay on track with posts, schedule posts and post to Facebook, Twitter and Instagram at the same time.

Overall, I think that this social media campaign was a success, we have started a following and throughout the year we can receive more. We can continue to post pictures, fun facts and information. Along with some of the ideas we had for August, such as a Photo Contest, which may keep the followers involved and remember what August is about in Pennsylvania.

For the past several years the Program asked the Department of Agriculture for a Produce Month proclamation and asked that the Secretary of Agriculture present it at an event they were already scheduled to do. This was because of several previous experiences where the Program tried to organize its own press event but was unsuccessful in really getting significant press coverage. However, the result of

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	<p>relying on the Department for organizing the event has been minimal recognition of Produce Month in some cases. The most successful event was probably in 2012 when the Department worked with the Scranton Farmers’ Market to organize a food bank donation from the growers of the market at their market. This event did prominently drawn attention to Produce Month and received significant press coverage because of the food bank donation. For the future, the Program might do well to try to take the lead in organizing one or more similar events during Produce Month.</p> <p>With the decision to abandon the general, season-long press relations effort in 2014, the only press releases put out during the 2014 and 2015 seasons were the general one on Produce Month itself. While the 2015 release resulted in reasonable coverage, several different press releases during the month, or even a press kit issued just prior to the beginning of Produce Month, has the potential to draw more coverage. Press releases can be a very cost effective tool in publicizing Produce Month and focusing attention on Pennsylvania vegetables.</p> <p>It is difficult to gauge the effectiveness of a statewide radio advertising campaign for a generic commodity group like vegetables, especially where there are hundreds of sales outlets and vendors for which the sales records are not available to the Program and where there are many other factors involved in determining the sales volume of Pennsylvania vegetables. While social media has become an important communication channel in our society, it will not reach everyone. If future budgets allow, radio advertising may still have a place in the Produce Month promotions.</p>
<p>Contact Person:</p>	<p>William Troxell phone 717-694-3596, fax 717-694-3596 pvmrp@embarqmail.com</p>
<p>Additional Information:</p>	<p>Large Posters (about 18” x 22”)</p>

AUGUST is PA Produce Month



**Fresh local
vegetables
at their best!**

Visit www.paveggies.org for tasty recipes!

Pennsylvania Vegetable Marketing and Research Program

Small Posters (11"x8.5")



Price Cards (11"x7")



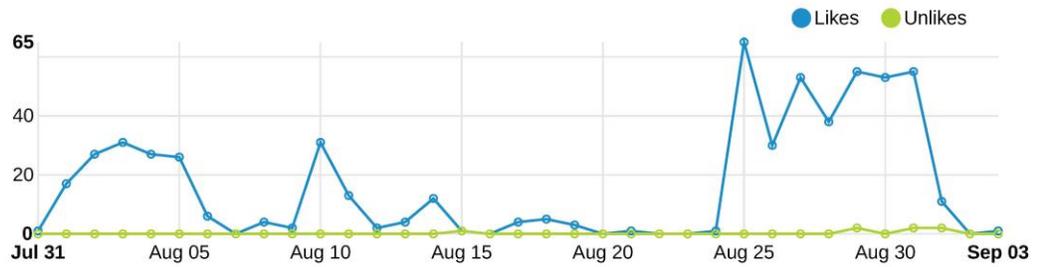
Social Media Statistics

Aug 01, 2015 - Sep 04, 2015

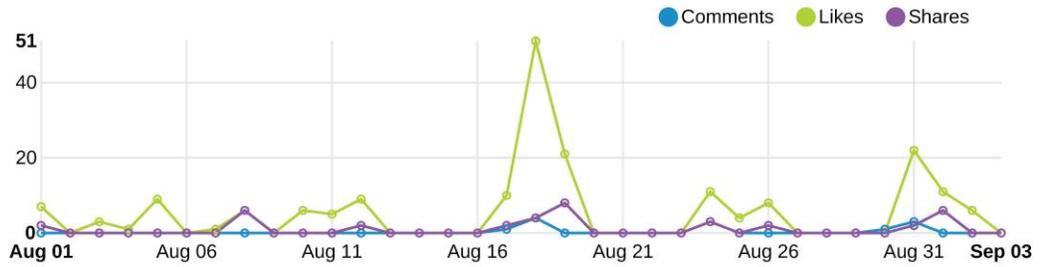
Snapshot

Total Likes ? 648 ↑ 671.4%	New Likes ? 579 17 (daily avg)	Page Engagement ? 283 ↑ 262.8%	Weekly Total Reach ? 4,785 ↑ 641.9%
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Daily Likes



Daily Post Feedback



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Project Title:	
Project Title:	Pennsylvania Vegetable Industry Strategic Planning Initiative, Project 18
Project Summary:	<p>Because the vegetable industry in Pennsylvania is composed of over 3,500 growers, most of whom are small growers, the industry is very diverse and in many respects uncoordinated. While both the Pennsylvania Vegetable Growers Association (PVGA) and the Pennsylvania Vegetable Marketing and Research Program (PVMRP) represent growers from across the state, the two organizations are not currently structured and oriented to effectively lead the industry in a strategic manner. Both groups are primarily grower organizations. PVMRP by law is a strictly grower organization and while PVGA does include others involved in the vegetable, potato and small fruit industries, it is grower focused. Processors, buyers, marketers, and allied supply industries are important partners of the vegetable industry who need to be included in leading the industry strategically. Penn State Extension educators and Penn State University researchers and extension specialists as well as Pennsylvania Department of Agriculture personnel also need to be involved in any strategic planning effort if the effort is to be successful.</p> <p>In March 2009, an invited group of industry members met at a strategic planning workshop to discuss issues impacting the Mid-Atlantic fruit and vegetable industries as part of the Mid-Atlantic Specialty Crops Research Initiative funded by the USDA Specialty Crop Research Initiative. This meeting involved participants from Delaware, Maryland, New Jersey, New York, and Virginia as well as Pennsylvania. This current project was intended to build upon some of the issues identified in that multi-state effort but to develop specific action plans for PVMRP and PVGA relative to advancing the Pennsylvania vegetable industry. Specific roles for Penn State and the Department of Agriculture were also considered.</p> <p>PVMRP’s mission statement states that its sole purpose is to serve the vegetable growers of Pennsylvania by promoting Pennsylvania-grown vegetables and by funding practical vegetable production research. PVGA and PVMRP cooperatively fund a ten or more vegetable production research projects each year. The Program has developed over the years a set of promotion activities consisting of distributing point-of-purchase materials, sponsoring a vegetable recipe contest, conducting an annual press relations campaign, maintaining a consumer-oriented website and promoting August as PA Produce Month. However, it has never engaged in any strategic planning exercise to determine if this is the best use of its resources. PVGA had undertaken a strategic planning process in 2004 and 2009, but in both cases the focus was more on the Association’s success rather than on the wellbeing of the industry as a whole. While these two focuses are not mutually exclusive, they are not necessarily the same either. The Association’s vision statement sees the Association as the driving force in ensuring the future viability of the commercial vegetable, potato and berry industries in Pennsylvania, but in reality PVGA needs to partner with PVMRP to be effective achieving that vision. PVGA is only a voluntary association of growers whereas PVMRP by law includes all the growers of the state. Cooperation and coordination with Penn State Extension, University researchers and specialists and the Department of Agriculture is also essential to making any plans truly effective and comprehensive.</p> <p>The current consumer trend to favor locally grown food is a tremendous opportunity for the Pennsylvania vegetable industry to increase its market share, but the industry must work together to take the greatest advantage of the trend. Impending food safety regulations will be a challenge for all growers to satisfy but will be especially difficult for the state’s small growers. Coordinated industry leadership could play a major role in helping the industry meet this challenge.</p> <p>The recent state and federal cuts in funding for agricultural research and extension threaten to limit</p>

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	<p>research and extension resources for the vegetable industry at Penn State University. Other industries have responded by providing industry financial support for these functions at Penn State and the vegetable industry may have to do likewise. However, currently the Association and Program do not have the financial resources to do this on a meaningful scale. Identifying potential ways of obtaining these financial resources would be one of the goals of the strategic planning process.</p>
<p>Project Approach:</p>	<p>The Program, in cooperation with (PVGA), contracted with Penn State Extension for the services of William Shuffstall and Judy Chambers, extension educators with expertise in the strategic planning process, to serve as facilitators for the strategic planning sessions.</p> <p>Four regional sessions were conducted as follows:</p> <ul style="list-style-type: none"> - South Central Pennsylvania – Penn State Extension office in Chambersburg – February 4, 2014 – 12 attendees - Southeastern Pennsylvania – Yoders’ Restaurant in New Holland – February 10 – 18 attendees - North Central and North Eastern Pennsylvania – Penn State Extension office in Bloomsburg – February 12 – 28 attendees - Western Pennsylvania – Soergel’s Orchard in Wexford – February 17 – 30 attendees <p>These sessions included growers, allied industry personnel, board members of the Program and PVGA, Penn State University staff and faculty, extension educators, and Department of Agriculture personnel. Postcard invitations (see copies below) were mailed to 2,873 industry members across the state during the last week of January. Advertisements were also published in the January issue Pennsylvania Vegetable Growers News (circulation 3,300 plus) and the vegetable Proceedings of the Mid-Atlantic Fruit and Vegetable Convention (circulation 1,000). A preliminary informational article was also published in the November issue of the Pennsylvania Vegetable Growers News (circulation 3,000 plus). Program staff also sent email reminders and made some personal phone calls to selected individuals to encourage attendance at the regional sessions.</p> <p>The sessions began at 9:30 a.m. and concluded by 3:00 p.m. with a working luncheon provided. After introductory remarks, participants were divided into smaller roundtable groups of 4 to 8 persons to discuss the following questions:</p> <ol style="list-style-type: none"> 1. <i>How have PVGA and the Marketing and Research Program been most helpful in marketing and promoting your industry? What would you like to see emphasized or added in the future?</i> 2. <i>Is there a need for a cooperative industry effort to facilitate sales, distribution and/or aggregation? If so, what specific activities would be of value?</i> 3. <i>What areas of research are needed by the vegetable industry? Please be specific. What are some potential sources of additional funding to support research priorities?</i> 4. <i>What do you see as the educational needs for the industry in the next 5 years? What are the best ways to deliver education for the industry?</i> 5. <i>How is PVGA doing at representing the interests of the industry? What types of efforts would benefit the industry in the future?</i> <p>Twenty minutes of discussion was allocated for each question followed by reports from each table to the entire group for 10 minutes before moving on to the next question. The participants were then asked to rank the five topic areas above for importance.</p> <p>Mr. Shuffstall and Ms. Chambers summarized the results from the four regional sessions in preparation for a statewide wrap session attended by 45 persons that included board members of the Program and PVGA,</p>

vegetable Penn State Extension educators, Penn State University researchers, auction representatives, and other key industry representatives. This session was held at the Penn Stater Conference Center Hotel in State College on March 5, 2014 from 9:00 a.m. to 3:00 p.m. with a working luncheon provided. Overnight lodging was provided to PVGA and Program board members because these boards conducted their spring meetings the day before and after respectively.

The statewide session began with the summary of the discussions at the regional sessions, which indicated that the regional session participants had identified and prioritized the following five strategic goals for the Pennsylvania industry:

- 1. *Marketing*
- 2. *Research*
- 3. *Education*
- 4. *Advocacy*
- 5. *Crisis Management*

The group was then divided into roundtable groups to further develop objectives for each goal during the rest of the morning session. The facilitators suggested the following objectives based on discussions at the regional sessions:

Marketing Goal: *Increase PA vegetable growers market share.*

Objective 1 Direct Consumer marketing

Objective 2 Tools growers can use to educate consumers

Research Goal: *Support research that supports the vegetable industry.*

Objective 1 Applied production related research

Objective 2 Marketing research

Education Goal: *Help the industry stay up to date and informed about topics relevant to the PA Vegetable Industry*

Objective 1 Identify educational topics

Objective 2 Identify delivery methods

Objective 3 Build partnerships and collaborations with other organizations to deliver educational programs

Advocacy Goal: *Represent the interests of the PA Vegetable Industry to all levels of government.*

Objective 1 Represent the industry to all levels of government

Objective 2 Provide tools that can be used by members to conduct grass roots advocacy.

Crisis Management Goal: *Assist the industry in managing and responding to crises.*

Objective 1 PVGA will develop and operationalize a crisis management plan

Objective 2 Provide tools and education that will enable growers to respond to and manage crises.

In the afternoon, the group was again divided into roundtable groups to develop strategies for each objective, which were then reported back to the whole group. Each strategy was assigned to either the Program or PVGA for implementation.

Mr. Shuffstall and Ms. Chambers met the following day with the Program board to further develop, evaluate and prioritize the strategies assigned to the Program. They met with the PVGA Board on March 25, 2014, for the same purpose. They then summarized the results of all the sessions into the document attached to the end of this report and presented this to both boards in a conference call on April 24, 2014. One immediate result was the decision of the boards to jointly apply for another SCBG to retain a consultant to provide additional staff capacity to both organizations to help achieve several of the goals, especially the development of a crisis management plan.

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	<p>Mr. Shuffstall met with the PVGA committee chairs on December 14, 2014, to develop a plan for working with their respective committees to implement the various recommendations in the strategic plan. He met with them and one of the PVMRP officers again on February 25, 2015, to further develop those plans and train them in making their committees effective. The PVGA major committees met on March 2, 2015, to develop action plans for implementing the strategic plan recommendations assigned to PVGA for implementation.</p>
<p>Goals and Outcomes Achieved:</p>	<p>Attendance at the strategic planning sessions was intended to be a measurable outcome. Considering that the effective combined audience of growers and industry persons reached by PVMRP and PVGA is about 2,000, the 88 persons attending the regional sessions was frankly less than hoped for. The first two meetings (southcentral and southeast) in particular should have had more attendance as they were in the areas where there is the heaviest concentration of growers. As was noted in the annual report for 2014, notice of the specific dates of the regional sessions further in advance might have helped although growers were made aware of that the meetings were going to be scheduled several months in advance even though the exact dates and times were not mailed to growers until a week or two in advance. Weather was a factor in the attendance at the southcentral meeting. While the numbers could have been greater, in general there was a good cross section of the industry represented. The last two regional meetings, in particular, had growers and industry people there from different sectors (fresh market and processing; large and small; direct market and wholesale; etc.).</p> <p>The attendance at the statewide session was good with 45 persons attending, but we would have liked to have had more representatives of the 14 produce auctions from across the state – only six representatives from four auctions attended. This session was well attended by members of the boards of both PVGA and PVMRP as well as extension educators and Penn State researchers. The following statement of core values, which describes the vegetable industry was developed at the statewide session and refined by a committee afterwards.</p> <p><i>We are a diversified industry using a variety of production and marketing methods to supply fresh and processing vegetables. As primarily family farms, we share a respect for our heritage and way of life and a responsibility for environmental stewardship. Our growers sell directly to consumers through roadside farm markets, community farmer’s markets, and CSA’s as well as working with auctions, cooperatives, retailers, restaurants, wholesalers, brokers, processors and others to market and distribute our products. Our stakeholders include our suppliers, the PA Department of Agriculture, Penn State Extension educators and researchers, and other agricultural organizations. Our most important stakeholders are our customers who enjoy and have come to depend on our great tasting fresh vegetables year after year.</i></p> <p>In conjunction with this strategic planning effort for the vegetable industry, PVMRP also conducted a third-party evaluation of its overall promotion efforts. With funding from a separate grant from the Pennsylvania Department of Agriculture, Mr. Jeff Manning, a national expert on commodity promotion programs, evaluated the various promotion efforts that the Program annually undertakes. He presented his recommendations to the PVMRP Board at their March 2014 meeting. Most of the substantial changes in the PVMRP activities are more the result of Mr. Manning’s recommendation that the Program concentrate on its month-long promotion of Pennsylvania vegetables during August. As a result the PVMRP Board voted to discontinue its season-long press relations campaign and annual vegetable recipe contest. While they opted to continue the distribution of point-of-purchase materials to growers, they are moving toward making it more self-supporting.</p> <p>One immediate result was the decision of the boards to jointly apply for another SCBG to retain a</p>

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	<p>consultant to provide additional staff capacity to both organizations to help achieve several of the goals, especially the development of a crisis management plan. This application was approved and these funds are being used to allow PVGA to develop a business plan for expanding its staff capacity, to develop a crisis management plan for the Association and the industry and to help growers be prepared to comply with new FSMA regulations. The PVMRP will also be using some of these funds to support its revised “August is PA Produce Month” promotion.</p> <p>The March 2, 2015 day of PVGA committee meetings was very productive in helping these committees begin to flesh out action plans for implementing the strategic plan recommendations. Previously, PVGA committees only usually met by telephone conference call rather than in person. In recognition of the value of the in-person committee meetings, the PVGA Board agreed to schedule another day of in-person committee meetings on the day prior to the December meeting of the Board. The current plan is to have the committees and Board gather for a noon luncheon followed by concurrent committee meetings.</p> <p>Both organizations are continuing to refine the goals and strategic priorities identified in the strategic plan document prepared by Mr. Shuffstall and Ms. Chambers as they work at developing action plans to implement them. This will be an ongoing process for both groups for the next several years.</p> <p>Both groups have included articles in their respective publications to growers/members, namely PVGA’s Pennsylvania Vegetable Growers News (major article in March 2015 with other references in other months) and PVMRP’s Fresh Ideas (June 2014 and annual report issues), about the outcomes of the strategic planning process. A report at the PVGA Annual Meeting was also given. Since the real results of this process are the changes being implemented by both groups on an ongoing basis, this reporting process will be ongoing as well. Because the recommendations in the strategic plan were dealt more with the internal details of the operations of PVGA and PVMRP rather than a major change in operations or focus for either group, no major public press releases were issued to agricultural trade publications as originally</p>
<p>Beneficiaries:</p>	<p>The 3,500 growers and others involved in the Pennsylvania vegetable industry are ultimate direct beneficiaries of this project. In particular, the 990 members of PVGA and the 1,500 growers on the PVMRP’s list of commercial growers will hopefully see increased and enhanced services of these two organization.</p> <p>With the related effort of the PVMRP in evaluating and re-directing its vegetable promotion efforts, the growers involved with the Program, and even growers not directly involved with the Program, will potentially benefit from a more effective promotion effort. In addition, these same growers stand to benefit as strategies designed to increase the amount of funding available for vegetable research.</p> <p>In order to implement the strategic plan, Mr. Shuffstall worked with PVGA leaders to revitalize the Association’s committee structure and process – a result that should benefit the Association and its members for years to come. As the PVGA committees work through the processes of developing and implementing action plans for the strategic priorities, it will strengthen the Association and enable it to provide more and better services to its members and, in turn, attract more growers to become dues-paying members.</p> <p>Indirectly, the consumers of Pennsylvania are benefited by a viable vegetable industry that provides them with locally grown vegetables and boosts the Commonwealth’s overall economy.</p>
<p>Lessons Learned:</p>	<p>Both organizations contract with Troxell Administrative Services (TAS), an independent contractor, to provide administrative services to them (although the PVMRP also obtains some clerical support through the Pennsylvania Department of Agriculture). TAS is primarily the services of William Troxell with support</p>

	<p>from family and part-time employees. The amount of services TAS can provide is limited by their staff capacity which is also influenced by the budget amounts from both groups that are available to support such services. The need for greater staff capacity was identified as need in the strategic planning process. It, unfortunately, is also going to be a limiting factor in implementing the strategic plan until the capacity is increased. While one of the goals of another SCBG project undertaken by the groups is to develop a plan to increase the staff capacity, in the interim it remains an issue. Frankly, it was also an issue in conducting the strategic planning process itself in terms of finalizing plans for the process and notifying growers in a more timely manner.</p> <p>Strategic planning can be a difficult concept for many individuals to grasp in concrete terms. We suspect that is one of the reasons the attendance at the regional focus groups was less than hoped for. There is sometimes the hope or expectation that a strategic planning process will identify some new direction, function or activity that will result in a major shift in an organization or industry and bring about dramatic success. However, since the process involves identifying needs and ways to meet those needs, if the end result of strategic planning process identifies needs that an organization/industry is already addressing, it really validates the organization’s or industry’s mission and activities. In this case, four of the five identified goals of marketing, research, education and advocacy were already the stated major goals of PVGA (all four) and PVMRP (marketing and research) and their activities. The new goal identified was the need for crisis management for which a plan is being developed by PVGA through another SCBG project.</p> <p>One of the areas addressed by Mr. Shuffstall and Ms. Chambers was the need for the committees and boards of PVGA and PVMRP to be more directly involved in actually implementing the work plans of the strategic priorities. This is particularly important given the organization’s limited staff capacity. The statewide distribution of growers makes frequent interactions of committee members less practical although modern communication technology certainly make this doable even if not convenient. The pre-occupation of growers with their own farm business operations, especially during the growing season when most do not have enough time available to adequately address the needs of their own businesses, means that they have a very limited amount of time and energy available to devote to the Association or the Board business. Overcoming the status quo of relying on staff to initiate plans and actions will be an organizational cultural shift that will take time and effort to change and will likely always be a challenge. While hopefully a business plan can be developed to allow more staff to be hired, it is unlikely that there will ever be enough staff to meet all the needs. Of course, both PVGA and PVMRP are organized as grass-roots grower organizations so that a significant amount of direct grower involvement is absolutely essential for the health and validity of the organizations.</p>
<p>Contact Person:</p>	<p>William Troxell phone 717-694-3596, fax 717-694-3596 pvmrp@embarqmail.com</p>
<p>Additional Information:</p>	<p>Publicity Postcard</p>



Strategic Plan for the Pennsylvania Vegetable Industry
Pennsylvania Vegetable Growers Association
Pennsylvania Vegetable Marketing and Research Program
Draft Plan as submitted by Bill Shuffstall and Judy Chambers, Penn State Extension

1. Introduction

The Pennsylvania Vegetable Growers Association (PVGA) and the Pennsylvania Vegetable Marketing and Research Program (PVMRP) are the two key organizations representing the Pennsylvania vegetable industry. Recognizing a need to address current and future challenges collectively and purposefully, the two organizations embarked on a strategic planning process with support from the Pennsylvania Department of Agriculture (PDA). Their proposal to PDA describes the process and its desired outcome: *In an industry dominated by a large number of small growers, the ability of the industry to act cooperatively is vital to its future but also very challenging. This project is intended to gather all segments of the industry together to strategically plan how the different organizations, segments and partners in the industry could work together to collectively strengthen and advance the industry.*

The strategic planning process, conducted by Penn State Extension, consisted of four regional focus groups designed to collect stakeholder input on challenges and priorities. Following the focus groups, a day-long strategic planning retreat was conducted at State College with members of both PVGA and the PVMRP and other stakeholders. Each organization's board also met independently with the Penn State Extension facilitators to review the results of the strategic planning retreat and identify priorities. In a happy coincidence, PVMRP met with a marketing consultant during the process, which helped them focus on a marketing approach.

This strategic plan presents five overarching goals to sustain and advance the Pennsylvania vegetable industry. Objectives and strategic priorities have been identified for each goal with first-year priorities identified. These are presented in a table format which can also function as a stand-alone

document. The Appendix includes details from the focus groups, a sample action plan, and a list of participants in the strategic planning process.

Because the plan has been developed for two collaborating organizations, it does not include organizational mission statements. Nor does it provide the specific action steps necessary to achieve the first-year strategic priorities. The next step, which is a critical one, is to fully implement the plan as discussed in Section 5 ‘Recommended Implementation Steps’.

2. Focus Groups

Four focus groups were conducted in February and March 2014 in Chambersburg, Lancaster, Bloomsburg and Wexford. PVGA identified and invited stakeholders along with members of PVGA and PVMRP. Each focus group was led by two Penn State Extension facilitators. The same process was used in each of the focus groups: a set of 5 questions were posed for discussion. For most of the questions, participants worked in small groups of for in-depth discussion, and then reported back to the whole group. Participants had an opportunity to provide additional input during the whole group discussion of each question. The 5 questions posed were:

- How have PVGA and the Marketing and Research Program been most helpful in marketing and promoting your industry? What would you like to see emphasized or added in the future?
- Is there a need for a cooperative industry effort to facilitate sales, distribution and/or aggregation? If so, what specific activities would be of value?
- What areas of research are needed by the vegetable industry? Please be specific. What are some potential sources of additional funding to support research priorities?
- What do you see as the educational needs for the industry in the next 5 years? What are the best ways to deliver education for the industry?
- How is PVGA doing at representing the interests of the industry? What types of efforts would benefit the industry in the future?

At the end of each session, participants were asked what other issues or concerns should be considered during the strategic planning process. Two themes emerged during this discussion across all 4 focus groups: succession planning and crisis management. The results of the focus groups were presented at the strategic planning retreat in written form and as a PowerPoint presentation, both of which can be found in the Appendix.

3. Core Values

The following statement of core values was developed during the strategic planning meeting:

We are a diversified industry using a variety of production and marketing methods to supply fresh and processing vegetables. As primarily family farms, we share a respect for our heritage and way of life and a responsibility for environmental stewardship. Our growers sell directly to consumers through roadside farm markets, community farmer’s markets, and CSA’s as well as working with auctions, cooperatives, retailers, restaurants, wholesalers, brokers, processors and others to market and distribute our products. Our stakeholders include our suppliers, the PA Department of Agriculture, Penn State Extension educators and researchers, and other agricultural organizations. Our most important stakeholders are our customers who enjoy and have come to depend on our great tasting fresh vegetables year after year.

4. Goals objectives and strategic priorities

- Marketing. Assure and expand market access and opportunities for PA vegetable growers.

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- Research. Support and disseminate research that is timely and relevant for a profitable PA vegetable industry.
- Education. Help members stay up-to-date and informed about topics relevant to the PA vegetable industry.
- Advocacy. Represent the interests of the PA vegetable industry to federal, state and local policy-makers.
- Crisis Management. Be proactive in assisting the PA vegetable industry in managing and responding to crises.

Goal and Objectives	Strategic priorities	Year 1	Lead people
<u>Marketing Goal</u> Assure and expand market access and opportunities for PA vegetable growers.			
<u>Objective 1</u> Conduct targeted marketing outreach for direct sales and farm-to-table.	Continue to produce and distribute point-of-sale materials. Develop a business plan to cover the costs of production and distribution upon expiration of PDA grant.	✓	PVMRP Bill Troxell
	Plan a promotional campaign including social media for place-based marketing focused on the month of August. Launch by August 2015.	✓	PVMRP • PDA, commodity groups, PSU Extension, St. Joseph’s Univ.
	Following on the August place-based promotion, provide consistent social media outreach to consumers, on at least a weekly basis. Ideas include meet the farmer, what’s in season, locating markets, recipes, video of the week, etc.		PVMRP
<u>Objective 2</u> Address disconnects in the indirect/wholesale supply chain.	Increase the number of GAP-certified growers. Explore options for marketing GAP-certification services to growers and generating revenue for PVGA.	✓	PVGA New committee: Board members, PSU Extension, PDA
	Provide education on post-harvest food safety and food handling for others in the wholesale and retail supply chains.		PVGA

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	Work with retailers to increase their access to growers and encourage promotion of local foods.		PVGA
	Initiate new partnerships with food systems and food hubs.		PVGA
Goal and Objectives	Strategic priorities	Year 1	Lead people
<u>Research Goal</u> Support and disseminate research that is timely and relevant for a profitable PA vegetable industry.			
<u>Objective 1</u> Increase funding to support research and positions	Explore opportunities for partnerships with other research institutions such as Penn State’s other colleges, Rodale Institute, etc	√	PVMRP • research meeting
	Obtain access to existing research from other sources such as land grant universities.	√	PVMRP • Jim Hoopes • PSU Extension
	Seek investment from other business sectors that focus on related areas such as suppliers.		PVMRP • New committee
	Engage in ongoing communication with Extension leadership on the need for funding for research and positions.		PVGA
	Increase PVGA Keystone endowment fund. Seek member bequests and endowments		PVGA
	Develop materials on the economic impact of PA’s vegetable grower industry to encourage more investment in funding for research.		PVGA • PDA, Lela Reichert
<u>Objective #2</u> Prioritize grower-identified research needs	Survey growers every 2 years to find out more specific information on research needs	√	PVMRP
	Continue to provide input into the research agenda for the benefit of the industry		PVGA with input from PVMRP
	Conduct post-season conference calls with growers and researchers to discuss research needs.	√	PVMRP
Goal and Objectives	Strategic priorities	Year 1	Lead people
<u>Education Goal</u> Help members stay up-to-date and informed about topics relevant to the PA vegetable industry.			

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	<u>Objective #1</u> Identify and/or develop educational resources in a variety of topic areas based on member input.	Ensure member participation on Extension advisory boards at county and state level	✓	PVGA • PSU Extension
		Gather information from growers through surveys and other tools at Hershey conference, auctions, growers' meetings and Extension activities.		PVGA • Convention Committee
	<u>Objective #2</u> Deliver educational resources through a variety of sources and methods that reflect members' learning preferences.	Rebuild website and keep updated with links to relevant sites such as Extension	✓	PVGA • Website Committee
		Maintain communication with members through the monthly newsletter. Issue a periodic (at least biweekly) electronic update/alert to help keep members with these communication capabilities better informed.	✓	PVGA
		Insure the same or increased attendance at the Mid-Atlantic Fruit and Vegetable Convention.		PVGA • Convention Committee
		Facilitate membership participation in the farm market tour sponsored by the PA Retail Farm Market Assn. or help organize a farm market tour prior to the Mid-Atlantic Fruit and Vegetable Convention.		Implement in the future
		Investigate the feasibility of developing YouTube videos about research projects being conducted. Consider developing or linking to on-line educational opportunities.		Implement in the future
	<u>Objective #3</u> Expand educational opportunities to underserved areas of the state.	Provide \$200 grants for grower meetings around the state throughout the year and \$100 grants to co-sponsor auction meetings.	✓	PVGA
		Provide transportation assistance to growers from local auction areas	✓	PVGA
		Sponsor a series of three or four field days on growers' farms around the state to showcase innovative production or marketing practices.		Implement in the future

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Goal and Objectives	Strategic priorities	Year 1	Lead people
<p><u>Advocacy Goal</u> Represent the interests of the PA vegetable industry to federal, state and local policy-makers.</p>			
<p><u>Objective #1</u> Represent industry concerns to all levels of government policy-makers.</p>	<p>Develop Policy Resolutions for consideration at the Annual Meeting.</p>	<p>✓</p>	<p>PVGA • Gov't Affairs Committee</p>
	<p>Develop an annual set of Legislative Priorities. Present to state and federal legislators, via letters and visits.</p>	<p>✓</p>	<p>PVGA • Gov't Affairs Committee</p>
	<p>Partner with other agricultural organizations such as Farm Bureau on specific issues. Participate in United Fresh Produce Association's Public Policy Conference</p>		<p>PVGA • Gov't Affairs Committee</p>
	<p>Conduct community outreach activities: invite local leaders to open houses on farms, industry meetings, and the Hershey conference. Meet with local governments and other local leaders to highlight the benefits to the community from the vegetable-growing industry.</p>		<p>PVGA</p>
<p><u>Objective #2</u> Provide tools and resources for members to use to conduct grassroots advocacy.</p>	<p>Send Legislative Alerts to members and volunteers by email and fax. Include talking points, sample letters and sample email messages.</p>	<p>✓</p>	<p>PVGA • Gov't Affairs Committee</p>
	<p>Provide how-to workshops for members to teach grassroots advocacy techniques.</p>	<p>✓</p>	<p>PVGA • Convention Committee</p>
	<p>Provide mentorship to members to build advocacy skills</p> <ul style="list-style-type: none"> • use a buddy system for advocacy activities • educate members on positive customer relations as a proactive form of advocacy • provide members with information on relevant legislative/regulatory issues in the newsletter 		<p>PVGA</p>
	<p>Participate in National Ag Day, March 25.</p> <ul style="list-style-type: none"> • Urge members to visit legislators • Develop a fact sheet describing PVGA initiatives • Conduct a state Legislative Visitation Day in Harrisburg 	<p>✓</p>	<p>PVGA • Gov't Affairs Committee</p>

Goal and Objectives	Strategic priorities	Year 1	Lead people
<p><u>Crisis Management Goal</u> Be proactive in assisting the industry in managing and responding to crises</p>			
<p><u>Objective #1</u> Develop and operationalize a crisis management plan to address food safety issues and other potential crisis situations such as environmental or natural disasters, on behalf of the PA vegetable industry.</p>	<p>Identify resources needed to develop crisis management plan.</p>	<p>√</p>	<p>PVGA • Ag Resource Center • PDA</p>
	<p>Develop and operationalize crisis management plan:</p> <ul style="list-style-type: none"> • Create a liaison relationship with specific parties at PDA to assist in crisis management. • Identify spokespeople for crisis management plan. • Develop reliable methods for getting information out real-time to all in the industry when a crisis occurs. • Designate a key person for growers to contact on an as-needed basis for assistance in handling crisis situations. 		
	<p>Provide crisis management assistance to the industry:</p> <ul style="list-style-type: none"> • Develop proactive talking points for growers and others in the marketing chain. • Attend Ag Resource Center workshop and other educational opportunities, and share information with members. • Provide education for growers on crisis management for their farms. 		

5. Recommended implementation steps

- i Both organizations: complete action plan for first year
 - o Review list of Year 1 priorities in strategic plan. Revise as needed.
 - o Complete action plans for each Year 1 strategic priority. (An Action Plan template is provided in the appendix).
 - o Board of Directors review progress on action plan at least quarterly.
 - o Review objectives and strategic priorities from this strategic plan in the 4th quarter of each year.
 - o Update/revise action plans based on review of objectives and strategic priorities.

- ii PVGA organizational tasks
 - o Review and revise committee structure to match Year 1 action plans.
 - o Develop additional organizational capacity. Pursue funding through PDA grant, internships, or PVGA funds.
 - o Conduct campaign to expand membership.
- iii PVMRP organizational tasks
 - o Increase the number of growers who voluntarily pay annual assessment
 - o Determine if there is a workable method for holding non-compliant growers accountable

6. Conclusion and acknowledgments

The strategic planning process has identified key issues and concerns for the Pennsylvania vegetable industry, some of which were not previously recognized by PVGA or PVMRP on an organizational level.

Following are the more significant issues and concerns that surfaced during the planning process:

- o A focused marketing approach with a limited scope , i.e. August is Vegetable Month, that can be expanded in the future
- o Growers are seeking more web-based and social media materials for themselves and their customers
- o Training for growers in grass-roots advocacy techniques
- o Growers and stakeholders need technical assistance including GAP certification for growers and others in the supply chain to address Food Safety and Modernization Act (FSMA) regulation
- o Crisis management planning should be a high priority for the Pennsylvania vegetable industry as a whole

A critical outcome of the strategic planning process is recognition of the need for additional capacity to enable both organizations to implement this strategic plan and meet the needs of the vegetable industry. While volunteers from the board and general membership can take on some of the burden, many of the strategic priorities require professional resources. Development of a crisis management plan is a case in point: such a plan requires the input of an experienced crisis management professional who can help the industry anticipate the steps required to manage a crisis in food safety, a natural disaster or other event. Once the plan is developed, additional assistance will be required to operationalize it and sustain organizational capacity to implement when a crisis occurs.

Efforts are already underway to develop additional capacity for PVGA and PVMRP. We urge the two organizations to seek creative opportunities for collaboration with their stakeholders and their members to ensure the successful implementation of the strategic plan, and more importantly to ensure the future viability of an industry that is as much about heritage and way of life as it is about business profitability.

We wish to acknowledge the invaluable assistance of William Troxell, Executive Secretary to PVGA and PVMRP, in supporting and shepherding the strategic planning process, and to the members and stakeholders who gave not only their time but their best thinking to the effort.

Bill Shuffstall and Judy Chambers
Penn State Extension

Appendix

1. Summary of focus group input
2. Focus group results
3. Sample Action Plan
4. Blank Action Plan
5. List of participants

Project Title: Pennsylvania Produce to Pennsylvania Families, Project 19	
Project Summary:	<p>The Commonwealth of Pennsylvania is a worldwide leader in agricultural production and food processing. Despite this, a significant number of Pennsylvanians continue to struggle with hunger and food insecurity and lack access to sufficient nutritious food. According to the most recent survey by the Food Research and Action Center, more than 2 million residents, or 16.4% of the state’s population, do not have enough money to buy enough food for their families. Pennsylvania’s specialty crop farmers, food packers and processors and Pennsylvanians would derive mutual benefit from the establishment of a system linking the agricultural community with the food assistance network for the purpose of acquiring surplus agricultural products and distributing these products to Pennsylvania residents challenged by hunger and food insecurity. Pennsylvanians continue to struggle. The state’s unemployment rate today is nearly twice what it was some five years ago, sitting now around 8% from a low of 4.2% in the first half of 2007. The number of Pennsylvanians living in poverty last year was 1,648,184, or 13.4% of the state’s population. For Pennsylvania children, it was even worse, with 19.1% (more than a half million children) living in poverty. The National Bureau of Economic Research announced that the recession that started in December 2007 ended as of June 2009. But does it feel like it? The end of the recession does not necessarily mark the return to prosperity – if you do not have a job or have a job that comes nowhere near your previous wage earnings then you are probably in the 13.4% mentioned earlier. There is no better time to assist low-income [no-income] families maintain a healthy diet than today!</p>
Project Approach:	<p>The attractiveness of this program is there are actually two beneficiaries – Pennsylvania growers/processors and Pennsylvania low-income families. Growers and processors are reimbursed for cost involved in harvesting and preparing donated product and Pennsylvania-grown products stay in the state to help meet people’s basic food needs. The goal is to include as many growers/producers as possible, which in turn will assist them with keeping employees employed and reduce internal cost such as disposal fees. The product we are looking at, because of its long self-life (Apples, Cabbage, Corn, Potatoes) will limit the number of growers/processors, however, with over 625,000 pounds of product expected it is speculated that any interested grower/processor will be accepted into the program. As for the families which will receive the product, if for example all the produce was packaged in three pound bags, our network would have the opportunity to distribute over 208,000 units. At this point I might mention there is a more silent third beneficiary – Hunger-Free Pennsylvania’s 21 Partner Organizations that are able to increase hard-to-obtain fresh produce, supplement decreasing donations of non-perishable foods and most importantly provide fresh, nutritious food for people with limited access/resources to make available for themselves. The potential economic impact can best be described by a grower our organization has partnered with in the past – “we have a lot of produce that often goes to waste. <i>“This is a great program that allows me to offset the cost of handling and also ensures that my product is being used. I have seen many folks in my community who are now out of work and I like knowing that my farming is actually helping people.”</i></p>

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Product	Product Pounds	Program Cost Per Pound	Program Cost Per Product	Retail Cost Per Pound	Retail Cost Per Product
Greens	90	0.19	\$ 17	1.49	\$ 134
Potato	95,396	0.19	\$ 18,125	1.29	\$ 123,061
Squash	7,113	0.19	\$ 1,351	1.49	\$ 10,598
Apples	16,838	0.19	\$ 3,199	2.99	\$ 50,346
Cabbage	42,288	0.19	\$ 8,035	0.79	\$ 33,408
Cucumber	2,066	0.19	\$ 393	1.29	\$ 2,665
Peppers	665	0.19	\$ 126	2.49	\$ 1,656
Corn	720	0.19	\$ 137	1.49	\$ 1,073
Zucchini	808	0.19	\$ 154	1.99	\$ 1,608
Miscellaneous	565	0.19	\$ 107	1.79	\$ 1,011
Carrots	10,400	0.19	\$ 1,976	1.49	\$ 15,496
Yam	4,200	0.19	\$ 798	1.49	\$ 6,258
Beans	1,120	0.19	\$ 213	1.99	\$ 2,229
	182,269	0.19	\$ 34,631	1.698	\$ 249,542

Please note, the expected pounds were significantly less due to no matching funds and grant received was significantly less than grant received [75% less]. Anticipated pounds were 625,000 minus 75% equal 156,250 pounds, therefore, actual pounds are more than anticipated. Additionally, the average cost per pound was 19 cents.

Surplus or B-grade product available - HFPA did NOT contract with the SPC, but instead provided mini-grants to their membership to purchase produce off of a Specialty Crop Grower [GPP] in their specific service area [note: the much smaller grant also affected the poundage, people and regions receiving the product which will be addressed later]. Surplus or B-grade product was obtained from the grower, pick up and/or deliver dates were determined at the mutual convenience of both parties. Upon receipt of the product the grower provided the food bank with a product bill of lading/invoice. The food bank submitted the invoice to Hunger-Free Pennsylvania for payment. The invoice not only had the cost of the product but the quantity and weight. The product was distributed to food pantries, kitchens, shelters. In the case of the food pantries the product was distributed as raw product based on the number of people in the family. The kitchens and shelters utilized the product for their prepared meal service.

Harvest and/or Transportation Date – The plan around this changed with the fractional funding. Opposed to working with a handful of GPP in PA based on regions. Each of the HFPA members who received a mini-grant was given the flexibility to work with growers in their service area on their own discretion. Seventeen different specialty crop growers benefited from this project.

Prepare product Bill of Lading – The BOL and payment invoice became one document due to the scope of the project changing. Since the individual HFPA members made the only contact with the GPP, agreed upon the cost and then decided whether the product would be picked up by them or delivered by the GPP the need the formal process mentioned in the original proposal became over cumbersome and unnecessary. The sole document, invoice, was submitted to HFPA and then submitted to the Pennsylvania Department of Agriculture for reimbursement. This document had all the necessary information and was referred for accuracy by HFPA.

- Transport Product – refer to BOL
- Receive Product/Sign BOL - BOL

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	<ul style="list-style-type: none"> • Submit BOL - BOL • Payment Invoice – BOL • Pay GPP – Please note the GPP was paid immediately upon receipt of the product by the HFPA member. • Question 4 - Distribute product to pantries, kitchens, shelters- The product was distributed to food pantries, kitchens, shelters. In the case of the food pantries the product was distributed as raw product based on the number of people in the family. The kitchens and shelters utilized the product for their prepared meal service. Over 52,000 Pennsylvania low-income households benefited from the project.
<p>Goals and Outcomes Achieved:</p>	<p>The grant of \$35,000 was used to purchase over 182,000 pounds of fresh Pennsylvania produce from Pennsylvania growers then distributed to over 52,000 Pennsylvania low-income household. The average cost of the produce was .19 per pound, to buy the same product at retail the average cost would be \$1.70 per pound for a total cost of almost \$250,000. This grant enabled the organization to provide much need nutritional product to low-income families, plus support Pennsylvania growers.</p> <p>As part of the daily operations of our partner organizations the collecting of data is a well-oiled machine. From the administrative offices to the warehouse operation to the local food pantry site distribution all understand the collection of data to demonstrate an understanding of the required supply to meet the need is a well-respected necessary part of the business activities.</p> <p>The large quantity of potatoes provided close to 20,000 families with a highly nutritious fresh product. One medium potato cans 45 percent of the daily value for vitamin C; more potassium (620 mg) than even bananas, spinach, or broccoli; 10 percent of the daily value of B6; small amounts of thiamine, riboflavin, folate, magnesium, phosphorous, iron, and zinc; and all this for just 110 calories and no fat, sodium or cholesterol.</p> <p>The large quantity of cabbage provided over 10,000 families with this highly nutritious fresh product. Cabbage is very low in fat and calories, 100 g of leaves provide just 25 calories. Fresh cabbage is an excellent source of natural antioxidant, vitamin C. Provides 36.6 mg or about 61% of RDA per 100 g. Regular consumption of foods rich in vitamin C helps the body develop resistance against infectious agents and scavenge harmful, pro-inflammatory free radicals.</p> <p>The adequate quantity of apples provided close to 6,000 families with this highly nutritious fresh product. Delicious and crunchy apple fruit is notable for its impressive list of phyto-nutrients, and anti-oxidants. Studies suggest that its components are essential for normal growth, development and overall well-being. Apples are low in calories; 100 g of fresh fruit slices provide only 50 calories. The fruit is rich in dietary fiber, which helps prevent absorption of dietary-LDL or bad cholesterol in the gut. The fiber also saves the colon mucous membrane from exposure to toxic substances by binding to cancer-causing chemicals inside the colon.</p> <p>The adequate quantity of carrots provided close to 3,500 families with this highly nutritious fresh product. Sweet and succulent carrots are notably rich in anti-oxidants, vitamins and dietary fiber; however, they provide only 41 calories per 100 g, negligible amount of fat and no cholesterol. They are exceptionally rich source of carotenes and vitamin-A. 100 g fresh carrot contains 8285 µg of beta-carotene and 16706 IU of vitamin A. Studies have found that flavonoid compounds in carrots help protect from skin, lung and oral cavity cancers.</p> <p>Based on similar projects conducted in Pennsylvania and the budget estimates below we identify the</p>

following potential outcomes:

- A quarter of a million dollars to the Pennsylvania specialty crop industry to reduce overhead cost. As mentioned earlier since the grant was reduced significantly [\$140,000 requested - \$35,000 received], the opportunity for matching funds was eliminated [no one was interested in matching such a small grant – there was no media mileage.] Therefore, instead of \$250,000 to \$280,000, there was only \$35,000 available to the Pennsylvania specialty crop industry.
- Over three-quarter of a million dollars of Pennsylvania produce donated to the food assistance network and tax-deductions for the farmers, food packers, and processors. Again, since the grant was reduced significantly opposed to \$750,000 worth of produce, etc. there was only \$250,000.
- Increased availability of hard-to-obtain fresh produce, which could reach as high as 750,000 pounds. Again, since the grant was reduced, opposed to 750,000 pounds of food as anticipated only a little over 182,000 pounds of fresh produce was available.
- As high as 125,000 low-income households could benefit with this fresh, nutritious food that they normally have limited access. A little over 52,000 households received direct service in addition to the difficult numbers to determine as served through a neighborhood soup kitchen, however 12 did receive the product.

As part of the daily operations of our partner organizations the collecting of data is a well-oiled machine. From the administrative offices to the warehouse operation to the local food pantry site distribution all understand the collection of data to demonstrate an understanding of the required supply to meet the need is a well-respected necessary part of the business activities. Typical questions for our partner organizations to respond to at the end of any program are as follows:

1. What were the numbers of project participants per county within service area?

County	Households	Soup Kitchens
Adams	640	
Allegheny	10707	5
Armstrong	1785	
Beaver	1785	
Bedford	640	
Berks		1
Blair	640	
Bradford	640	
Bucks	49	1
Butler		
Cambria		
Cameron		
Carbon	1265	
Centre	640	
Chester		
Clarion		
Clearfield	640	
Clinton	640	
Columbia	640	
Crawford		
Cumberland	640	
Dauphin	640	
Delaware		

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Elk		
Erie		2
Fayette		
Forest		
Franklin	640	
Fulton	640	
Greene	416	
Huntingdon	640	
Indiana		
Jefferson		
Juniata	640	
Lackawanna		
Lancaster	640	
Lawrence	1785	
Lebanon	640	
Lehigh	1265	
Luzerne		
Lycoming	640	
McKean		
Mercer	2588	
Mifflin	640	
Monroe	1265	
Montgomery		1
Montour	640	
Northampton	1265	
Northumberland	640	
Perry	640	
Philadelphia	7566	
Pike	1265	
Potter	640	
Schuylkill		
Snyder	640	
Somerset	1785	
Sullivan	640	
Susquehanna		
Tioga	640	
Union	640	
Venango		
Warren		
Washington		1
Wayne	1265	
Westmoreland		1
Wyoming		
York		
TOTAL	52,696	12

2. What specific product, as well as quantity was purchased for this project?

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The overall response was positive, although the amount available to spend was minimal, the growers found a great deal of satisfaction with providing the fruit of their work to low-income families in their communities.

Beneficiaries: There were fifteen [15] Pennsylvania Specialty Crop Growers benefited from the program. Over 15,000 low-income families received the product.

Lessons Learned: Our organization was very pleased to obtain this grant, which enabled us to provide fresh Pennsylvania produce to our low-income families at a very reasonable price. The families that received the product were very grateful, especially those with children; we discovered that kids would rather eat an apple than a bag of chips, but unfortunately the chips are less expensive for the parent. This grant gave us the opportunity to reinforce people do want to eat healthier if provided with the resources and/or food to do so. The Pennsylvania grower community could not be more cooperative, helpful and caring – there was never a problem obtaining product and as you can see the grower’s cost to our organization was well below retail – proving once again the farmer is one of the most generous type person around. The positive outcome is that the grantee was able to access \$250,000 worth of fresh Pennsylvania produce at a cost of \$35,000 thus providing over 180,000 pounds to over 50,000 families.

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Project Title: Re-Branding Pennsylvania Wine & Wineries as an Agri-Tourism Destination, Project 21	
Project Summary:	<p>The Pennsylvania Winery Association (PWA) sought to re-brand Pennsylvania (PA) wines and wineries as an agri-tourism destination. Pennsylvania wineries were looking to gain recognition and market share as a wine producing state and as a wine destination, as the number of wineries in Pennsylvania increased annually (more than 160 wineries at the time). The rebranding efforts included the production of a logo and tagline supported by a public relations plan that included press releases, media outreach and a promotional event to promote Pennsylvania as a wine destination.</p> <p><i>The PWA proposed a project for rebranding Pennsylvania wine to help increase recognition for the state as wine destination and provide cohesion for the growing number of wineries. The rebranding efforts included the creation and designation of a logo and tagline that were representative of the diverse and engaging wine industry in Pennsylvania. A Public Relations plan was created to re-launch the brand and support the brand's position that Pennsylvania wineries are fun and accessible.</i></p> <p>The rebranding of Pennsylvania Wines was timely for several reasons. There has been an increased demand for local products. The “locavore” and “Buy Fresh, Eat Local” movements have created a greater opportunity for locally produced wines to pair with locally grown foods. Pennsylvania wineries produce wines from locally grown grapes, often utilizing lesser known or recognized grape varieties that the public may not be aware of as an option for purchase and consumption. Additionally, the increase in the number of wineries has created a need for stronger branding efforts. The past PA Wine tagline “Savor the Experience,” did not encourage or entice visitors to the wineries.</p> <p><i>An established cohesive branding message, truly representative of our State presents a recognizable image of Pennsylvania wines. The results of the rebranding efforts produced a Pennsylvania wine logo/tagline to better promote the industry to the public and stakeholders. Public relations efforts supported the rebranding efforts to engage visitors and wine consumers. The Public Relations efforts included press releases, pitches, media outreach and an event to announce the rebrand of Pennsylvania wines.</i></p> <p>This project was not built on a previously funding SCBGP project.</p>
Project Approach:	<p>Working with SWELL, a marketing consulting firm, the Pennsylvania Winery Association underwent marketing strategic planning in conjunction with the Pennsylvania Wine Marketing Research Board, a commodity council for the Pennsylvania wine industry. One result of the strategic planning was a need for a re-branded image targeted to our audiences and more tied to our location.</p> <p>The Pennsylvania Winery Association (PWA) marketing committee in conjunction with the Wine Marketing Research Board (WMRB) under the guidance of SWELL sought to create a new logo and tagline for the image of Pennsylvania wines. SWELL worked directly with a design firm to create several rounds of images for the new logo and taglines for Pennsylvania wine. The PWA hosted weekly update meetings with SWELL and the marketing committee chairs. Monthly meeting were hosted by the PWA for the entire committee to provide feedback and rack the status of the project. In March of 2013 the design options were presented to the joint committee for review and feedback.</p> <p>By April of 2013 feedback from the joint marketing committee was consolidated and provided to the designers for the creation of the final options. The joint marketing committees selected the new logo and tagline of “Keep Tasting”. “Keep Tasting”, encourages consumers to sample and continue to try Pennsylvania wines. The logo features a keystone with a splash of wine- a departure from the previous logo that could have been for any state.</p>

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	<p>The image was presented to the industry in early August. In late August at the Seven Springs Wine Festival, the PWA chose to release the new logo to the public via social media efforts, at the festival and on the website pennsylvaniawine.com.</p> <p>Letterhead, business cards and stationary was also created in August. Designs for the Membership Crush industry e-newsletter template and the Vine line public e-newsletter were created to further impress the re-branding colors and feel, featuring the new logo and tagline. Both publications were tested internally by PWA staff to ensure the new layout would work in conjunction with the e-mail services used.</p> <p>In August 2013, the PWA also began collecting benchmarking sales transaction metrics from a geographically diverse group of wineries. Each month the group of twenty wineries submitted sales transaction amounts to track foot traffic. These wineries also served as Pennsylvania wine ambassadors in future promotional efforts. The sales transaction metric allowed the PWA to monitor results of efforts related to the rebranding and additional promotional efforts.</p> <p>The PWA through SWELL is also working with a public relations firm, MVPR. MVPR crafted a release on the re-brand and upcoming efforts.</p> <p>On October 18, 2013 a press release related to the new logo and tagline, as well as the new mobile website. Social media efforts and the number of followers were reviewed on a weekly basis.</p> <p>Additionally, the branding signage displayed at the Pennsylvania Farm Show help to launch and release the new PA Wine logo and tagline to the public. The Pennsylvania Farm Show is the premier agricultural exposition in the Commonwealth. This event attracts nearly 1 million visitors throughout the eight day show. Pennsylvania wines has a booth featuring wineries sampling wines from around the state and the new branding was unveiled at the event. A prominent hanging sign and backdrop help to show case the brand in relation to the products.</p>
<p>Goals and Outcomes:</p>	<p>The goal for the re-branding was to create a logo and tag line that were more relevant to the consumer. The logo and take line were meant to engage the public and further related to the identity of Pennsylvania. The activities performed resulted in the creation of a new logo, tag line and the execution of announcing the brand to the industry and the public.</p> <p>The PWA monitored the success of the branding campaign through the market value of the media coverage that is received for the initial branding efforts. The sales of Pennsylvania wines were monitored for the duration of the re-branding campaign, using data from the Pennsylvania Liquor Control Board. Sales reports for the re-branding time frame will be made available in April of 2015. Ancillary outcomes will be monitored in overall PA wine sales, along with an increased positive attitude towards Pennsylvania wines, coupled with increased knowledge of PA wineries.</p> <p>Website traffic was monitored on pennsylvaniawine.com and through social media efforts to identify any changes in the metrics related to the branding campaign. To remain the most effective for the budget identified, revisions will be made to the project on as needed basis. The number of Facebook/Twitter followers and interactions has steadily increased by approximately 20 followers per week. The week of the press release announcing the re-branding and mobile site (October 18-23) Facebook interaction saw an increase of more than 2,000% from the previous week, with more than 8,900 people viewing the posts related to the rebrand and mobile site.</p> <p>Media coverage was also be monitored for the duration of the grant to identify correlations with the efforts of re-branding and awareness of Pennsylvania wines. More than 380 placements in national, local and regional online and print media appeared in the initial weekend of the release.</p>

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<p>Beneficiaries:</p>	<p>There were multiple beneficiaries for the rebranding of Pennsylvania wines. Both PA wineries and winegrape growers benefited from the project because the project raised the profile of Pennsylvania produced wines and create further awareness to the locally grown grapes, resulting in greater recognition and education that their quality product is available and accessible.</p> <p>Consumers benefitted from having an increased awareness and perceived accessibility to the local wines produced in Pennsylvania.</p>
<p>Lessons Learned:</p>	<p>The PWA and SWELL were on a schedule for the introduction of the new logo earlier than August. In reviewing the options for the logos, the joint PWA/WMRB marketing committee further reviewed the options and requested further revisions to ensure input from the committee members and the industry input. The delay was within the time line for the marketing and roll out plan.</p> <p>The PWA, SWELL and the joint marketing committee felt it was best to roll out the new logo and branding on all of the public faces of PA Wines at the same time. All efforts were in the time line, but there were efforts made to ensure all images were vetted prior to release.</p> <p>Public relations related to the brand were initially slated for September internally, but revisions were made to send the release in mid-October to seize upon “October is Pennsylvania Wine Month” and to gain joint traction with the release of the mobile site.</p> <p>Time changes did not result in any differences with the identified work plan, budget or measurable outcomes.</p>
<p>Contact Person:</p>	<p>Jennifer Eckinger, Executive Director, Pennsylvania Winery Association, 411 Walnut St., Harrisburg, PA 17101 Telephone: 717-234-1844 Fax: 717-234-1845 Email: pawine@verizon.net</p>
<p>Additional Information:</p>	<p>N/A</p>

Project Title: PA Preferred Culinary Connection with Focus on Promoting Pennsylvania Specialty Crops, Project 23	
Project Summary:	<p>Established in January of 2003, the PA Preferred Culinary Connection ranks among the most visited attractions of the Pennsylvania Farm Show. Over the course of eight days, the PA Preferred Culinary Connection hosts nearly 50 cooking demonstrations, with a focus on providing nutrition knowledge and showcasing the importance in consumption of Pennsylvania- sourced products and particularly specialty crops. Chefs from throughout Pennsylvania, TV Celebrity Chefs, and Culinary Schools educate the audience on the advantages of consuming specialty crops by incorporating such products into their recipes. Representatives from organizations such as the Pennsylvania Vegetable Growers, PA Apple Growers, PA Mushroom Institute, PA Winery Association, PA Beekeepers Organization and PA Maple Syrup Producers directly participate in the stage demonstrations and hand out literature on local producers and the advantages of buying from Pennsylvania sources. Certain days are designated by a specific specialty crop, which becomes the main ingredient to be incorporated in all dishes prepared on our stage that day (For example, Mushroom Day, Vegetable Day, Apple Day, etc.) Samples of each dish are prepared for audience members to taste in the conclusion of each demonstration. In addition, the PA Preferred Culinary Connection focuses on educating children and adults on healthy eating habits and food safety by demonstrating step-by-step food preparation while utilizing locally grown specialty crops.</p> <p>The importance of this project constitutes in the idea that it allows local farmers and food suppliers to showcase their specialty crops to local consumers; to educate the patrons on the health benefit to their families as well as the impact on their community’s local economy by highlighting the quality and accessibility of those products; to reach out to the restaurant community and encourage Chefs to use Pennsylvania-sourced fruits, vegetables and herbs in their establishments; and to increase the overall demand for locally grown, sustainably produced specialty crops. By creating spectacular dishes on stage using local specialty crops, our demonstrating Chefs have educated consumers that they can prepare delicious meals at home by utilizing solely Pennsylvania fruits, vegetables and herbs.</p> <p>Specialty Crops Commodity groups face the need to constantly find new ways to market their products and increase sales of those specialty crops products. The project fulfills those needs by allowing Specialty Crops Commodity representatives from the Pennsylvania Vegetable Growers, PA Apple Growers, PA Mushroom Institute, PA Winery Association, PA Beekeepers Organization and PA Maple Syrup Producers to directly participate in the stage demonstrations and hand out product samples and literature to the patrons. Their products are offered for purchase in close proximity to the PA Preferred Culinary Connection stage in the Main Expo Hall. According to Pennsylvania Ag News, in 2013: •Pennsylvania Maple Syrup Producers increased their sales by 5 percent selling more than 5,000 bags of maple cotton candy and 550 gallons of maple syrup; •The Pennsylvania State Horticulture Association sold 8,200 apple dumplings and more than 120 bushels of apples; •Pennsylvania Mushroom Grower’s Cooperative sold more than 8,000 pounds of mushrooms; •Pennsylvania Vegetable Growers sold 7,500 blooming onions, 600 vegetable wraps, 8,000 strawberry and raspberry surprise drinks, 8,800 bowls of soup and 1,800 pickles; and •The Pennsylvania Beekeepers Association sold more than two-and-a-half tons of honey, 800 gallons of honey ice cream and used more than 650 pounds of waffle mix. Our goal is to continue helping those organizations by increasing</p>

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	<p>the sales of those locally grown specialty crops through improving consumer awareness of specialty crop preparation. In fact, we have new Specialty Crops organizations inquiring about taking part in the PA Preferred Culinary Connection every year as they see the direct benefits that our event delivers, thus proving this project to be both timely and important for the specialty crops industry.</p>
<p>Project Approach:</p>	<p>The organization and management of the PA Preferred Culinary Connection with focus on promoting Pennsylvania Specialty Crops have largely followed the proven model while incorporating some additional elements, which we believe have further benefited the Pennsylvania Department of Agriculture in its effort to enhance the competitiveness of Pennsylvania’s specialty crops. Our efforts have focused on fulfilling the purpose of the PA Preferred Culinary Connection with focus on promoting Pennsylvania Specialty Crops – to showcase and promote the use of Pennsylvania-sourced products and particularly specialty crops in preparing original dishes, increase consumer awareness of those locally grown products and highlight the quality and accessibility of specialty crops - while incorporating entertainment, flair and star talent in delivering this message.</p> <p>We at Strategic Contracting rely on years of experience, established relationships with local Chefs, Culinary Schools, Specialty Crops groups, Media personalities and TV Star Chefs, as well as a thorough understanding of the program and all the necessary elements to achieve the greatest impact in the execution of this project. We invited Chefs from high end and well known restaurants in Pennsylvania to conduct cooking demonstrations, educate and spread awareness aimed at increasing local consumption of Pennsylvania’s specialty crops in the community. Once again, we included the Chef Instructors and Students from the top Culinary Schools in Pennsylvania, who supported the stage presentations for our demonstrators, showcased their talent and shared information on food safety and preparation.</p> <p>PA Mushrooms were featured on opening Saturday, Mushroom Day at the 2013 PA Preferred Culinary Connection, and served as the main ingredient in the dishes that this year’s Celebrity Chef Dave Lieberman, Host of Food Network’s Good Deal with Dave Lieberman and Dave Cooks, prepared on stage. Dave kicked off the 2013 PA Preferred Culinary Connection, entertained the audience and took pictures with the many fans in attendance.</p> <p>Creating the most appealing PA Preferred dish, utilizing Pennsylvania-sourced ingredients was once again the theme of the annual PA Preferred Battle of “The Burg” Cook Off. Local TV hosts and food reporters teamed up with some of the most well-known restaurant Chefs from the area and were tasked with preparing the most creative PA Preferred dishes that showcase the freshness, quality and diversity of Pennsylvania specialty crops. They also paired their creations with wines from local vineyards. One of the most recognizable mascots in American sports, The Phillie Phanatic, made a special appearance during the Cook Off. He entertained the audience and took pictures with Farm Show attendees.</p> <p>Justin Miller, the World’s Youngest Chef who has been a guest on “The Late Show with David Letterman,” Good Morning America, CBS Early Show, the Today Show, Mr. Rogers Neighborhood, Inside Edition, and CNN among others, showed off his talent in front of hundreds of spectators on Sunday, Vegetable Day. He prepared his signature Renee’s Sautéed Saupe using fresh, Pennsylvania grown vegetables and samples of</p>

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	<p>his dish were offered at the conclusion of his presentation.</p> <p>We had the honor to once again welcome The First Lady of Pennsylvania, Mrs. Susan Corbett to the PA Preferred Culinary Connection Stage on Monday, Weis Markets Day, as she prepared Wild Mushroom & Gryere Tart dish in collaboration with Governor’s Residence Executive Chef Barry Crumlich. Mrs. Christine Greig, wife of Secretary of Agriculture George Greig, also returned to the PA Preferred Culinary Connection stage and shared the importance of buying local with the audience.</p>
<p>Goals and Outcomes Achieved:</p>	<p>The goal of this project has been to continue and expand the efforts to date in attracting the participation of Pennsylvania Chefs, Culinary Schools, TV Celebrity Chefs, as well as the local Media in promoting locally sourced products and in particular the competitiveness of Pennsylvania’s specialty crops. The project, facilitated through Strategic Contracting, has allowed this important message to reach many consumers and provide them with information on specialty crops suppliers and the advantages of buying local.</p> <p>The 97th Pennsylvania Farm Show attracted record crowds in 2013. An estimated 585,000 visitors walked through the complex's doors during the eight-day celebration of agriculture, according to an attendance study. Attendants parked 71,153 cars, up four percent from last year. The show kicked off with the unveiling of a 1,200-pound butter sculpture which highlighted PA Preferred and several of the state's top commodities including dairy products, grapes and wine, Christmas trees, fruits and vegetables. There was no better place to celebrate this year’s theme “Made in PA. It makes a difference” than the PA Preferred Culinary Connection, featuring PA Preferred®, the official brand of agricultural products made or grown in Pennsylvania. Nearly 16,000 people gathered throughout the week to watch an all-star lineup of chefs, local celebrities and commodity producers entertain, prepare and create dishes using PA-sourced ingredients. The PA Preferred Culinary Connection attracts a wide range of cooks, home makers and food enthusiasts, from five to eighty-five years of age. In fact, many audience members plan their trip to the Farm Show around the PA Preferred Culinary Connection now, where they not only get ideas about creative dishes they can prepare at home with fresh, local ingredients but even learn what kind of Pennsylvania wine compliments each dish. The PA Farm Show: Facts & Figures listed in 2012 that “Two of the most popular attractions at the PA Farm Show are the PA Preferred Culinary Connection and the PA Marketplace.” “The Farm Show proudly displays our state’s diverse agriculture industry through every state from farm to fork,” said Agriculture Secretary George Greig in 2013. “The PA Preferred Culinary Connection demonstrations give showgoers the opportunity to taste top-quality dishes with Pennsylvania products. Come experience local food and discover why this year’s theme is ‘Made in PA. It makes a difference.’”</p> <p>The 2013 PA Preferred Culinary Connection received increased media coverage and had more website visits than ever before. Social media played a major role this year in communicating the PA Preferred message via facebook and numerous blogs online. WHP CBS 21 was one of the many TV stations that covered this year’s PA Preferred Culinary Connection and aired footage directly from the stage. ABC 27, Fox 43, Penn State Radio, Bob 94.9, and Radio Pennsylvania among other media outlets conducted interviews and put the PA Preferred Culinary Connection in the spotlight, spreading the word of the importance of buying local to thousands of viewers and listeners. The Pennsylvania Cable Network, a statewide network with bureaus in Philadelphia and Pittsburgh, delivered 5 hours and 25 min of live coverage directly from the PA Preferred Culinary Connection Stage. The Patriot-News, the area’s major daily newspaper, which reaches nearly</p>

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	<p>500,000 readers weekly in print and on pennlive.com, included almost every day coverage of the PA Preferred Culinary Connection and reminded its readers to visit our stage for some exciting programming and a taste of Pennsylvania. In addition, the PA Preferred Culinary Connection was featured in the following media outlets/publications:</p> <p>Pocono Record Radio Pennsylvania Centre Daily Times Lancaster Newspapers WITF Newsitem Williamsport Sun-Gazette The Phoenix The Sentinel Pennsylvania Ag News NothamptonPatch Tri County Record Philadelphia Daily News SF Gate Newsworks Press Connects Salisbury Patch PhillyBurbs NEagle Philadelphia Inquirer Huston Chronicle Echo Pilot Intelligencer Journal/Lancaster New Era The Scene Fulton County News Easton Express-Times Allentown Morning Call York Daily Record Farm and Dairy Johnstown Tribune-Democrat Lancaster Farming Lancaster Online Republican Herald Explore Clarion GantDaitly.com</p> <p>Such extensive media coverage spreads the message of buying local specialty crops to millions of readers and influences their preferences when they dine or shop.</p>
<p>Beneficiaries:</p>	<p>The Pennsylvania Vegetable Growers, PA Apple Growers, PA Mushroom Institute, PA Winery Association, PA Beekeepers Organization and PA Maple Syrup Producers are some Commodity Groups that benefited directly from the successful execution of this project. They were able to not only showcase and sell their products to a wide range of consumers but also educate them on the benefits of using specialty crops as</p>

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	part of their daily menu.
Lessons Learned:	The 2013 PA Preferred Culinary Connection with focus on Specialty Crops project has given us new ideas and targets to reach. We are determined to build on our success and reach many new consumers, bring in additional partners and commodity organizations. Utilizing the social media more effectively will allow us to spread our message of the importance of specialty crops even better and to a wider demographic.
Contact Person:	Maria Hulitt (267) 269-8894 maria@strategiccontracting.com
Additional Information:	For event photos, Chefs' bios and recipes, visit http://www.papreferred.com/culinary_connection
Project Title:	Specialty Crop Buy-Local Summit and Farm Markets Sustainable Food Promotion Project, Project 24
Project Summary:	In 2013 Fay-Penn maintained and developed 7 markets for the Fayette County Farmer's Markets and the Fayette County Buy Local Network. In 2013 we continued to develop the six (6) and one (1) new one for the Fayette County Farmers Markets. That made a total of seven (7) farmers markets for the Fayette and Greene County through the Fayette County Buy Local Network. Through our efforts with the Buy Local and Farmers Markets programs at Fay-Penn, we are able to help farmers move their product when available. Our farmers markets are held July through September which is the peak growing season for specialty crops (fruits and vegetables.) This is the perfect time and that is when they have a lot of fruits and vegetables to sell and may not have enough buyers for their products. In 2014 we had to close one of our markets, which was the Ohiopyle Market. We just could not get farmers to attend the market and part of the problem was that we had very few consumers in 2013. We did try to open a new market in the CAL-U area but we worked for months and just could not get it off the ground for the 2014 season. We are working on the CAL-U and the Fairchance area for the 2015 season.
Project Approach:	<p>Our marketing efforts are geared towards urging the consumer to purchase their fruits and vegetables at our local farmers markets. We provided matching funds in 2012 of \$5,000 from the Fayette County Tourism Grant. In 2013 we provided matching funds of \$40,080.50 through the USDA Farmers Market Promotion Program and in 2014 matching funds \$7,000 from the Fayette County Tourism Grant and \$15,000 from Fayette County Community Action.</p> <p>The following seven (7) communities were identified for the farmer's markets for 2013:</p> <ol style="list-style-type: none"> 1. Ohiopyle Started in 2010 Closed the market 2014 2. Uniontown Started in 2010 3. Masontown Started in 2010 4. Connellsville Started in 2010 5. Brownsville Started in 2011

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	<p>6. Scottdale Started in 2011</p> <p>7. Greensboro Started in 2013</p> <p>For the 2013 and 2014 farmer markets season we expanded the season to the end of September. We finished the season the last week in September with Greensboro’s finishing up the second week in October. Fay-Penn also drove consumer traffic by using the Fayette County “Buy Local Bucks Program.” This was done in the 2013 season by offering the first 20 customers at each of the farmers markets a \$5.00 voucher that could be used towards their purchases fruits and vegetables at the farmers market that day, just by presenting us with their Buy Local Cards. For the 2014 season we changed the offering to the first 15 customers at each of the farmers markets will receive 5 dollars of buy local bucks to use at the market that day. We also had our Buy Local Cards available for sale (\$10.00 per card) at the farmers markets. We sold 55 cards at the markets for 2013 year and in 2014 sold another 50 cards. These cards are good until Dec 2015. The farmers simply turned the vouchers in to us at the end of the day for cash. The funding for the Buy Local voucher program <u>was provided by Fay-Penn through their general fund.</u></p>
<p>Goals and Outcomes Achieved:</p>	<p><u>Objective 1:</u> Sustain the current seven (7) farmers markets. We have continued supporting the current (7) farmers markets and continue to provide managerial support to all seven farmers markets throughout 2013. We did hire 2 part-time contract positions for the seven farmers markets for the 2013 season. The roles of the two managers are to oversee to the markets when open and work to identify other farmers and vendors for the markets. Unfortunately one of the two part-time staff will not be back for the 2014 season. That will have us looking for another person to help with the markets in the spring of 2014. In fall of 2013 we had to close one of the farmers markets and that was the Ohiopyle Farmers Market due to the lack of farmers and vendors and no consumer and we did not reopen in the 2014 season. We only hired one person to manage the 6 farmers markets for the 2014 season. We were able to manage them by one person and one person in the Fay-Penn’s Office. In 2014 we averaged at least 3 farmers selling specialty crops per market.</p> <p><u>Objective 2:</u> Create a plan to continue to develop a buy local summit and implement in Southwestern PA to benefit the Southwestern PA Regional Agriculture Infrastructure: We held a Buy Local Summit in 2013. At the summit we had the PA Secretary of Agriculture address the group of 90 people about the department and the value of Specialty Crops on the local economy and how the SCBG Program works. The main focus was increasing public awareness on producing and consuming fresh fruit and vegetables and the impact that they have on the economy. The Buy Local Summit was a specialty crop and sustainable farming workshop. This educational training gathers local farmers, small business owners and consumers as a means to support the goals and benefits of consuming more specialty crops, and develop a sustainable farms and a farmer markets network; This work was all done in 2013 none was planned for 2014 and we achieved this objective in 2013.</p> <p><u>Objective 3:</u> Continue to develop and implement a marketing plan for the farmer markets that have locally grown fruits & vegetables and other specialty crops through a county wide marketing campaign: We continue to support and distribute a monthly newsletter insert through the Herald Standard Newspaper and the Greene County Messenger on issues dealing with food supplies, increased consumption of specialty crops, safety, production and other issues. This newsletter was circulated through, news outlets. We also did the following websites: Buy Local Network, Fay-Penn, Greene County Messenger, Herald Standard Newspaper; Laurel Highlands Visitor Bureau and facilitated the marketing of the seven local farmers markets in 2013 and six farmers markets in 2014 to consumers, local restaurants and grocery stores.</p> <p><u>Objective 4:</u> Increase the number of consumers eating healthier, locally-produced fruits and vegetables and</p>

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	<p>how to process those specialty crops: This is one area that we fall short in our plans for 2013 and for 2014 we have addressed this issue. We had some material at the farmers markets but we feel that we could have done a better job providing information to the consumer on healthier eating. In 2014 we developed a brochure hand out on the value of eating fresh fruits and vegetables. We hand out over 2,000 brochures. We also had recipes that were handed out at the market on using fresh vegetable and fruits in the monthly newsletter also.</p>
Beneficiaries:	<p>The people that benefited from this project are farmers and consumers. We had eight (8) different farmers attend our markets at different times throughout 2013 and 2014. We averaged 2 farmers per market throughout 2013 and 3 farmers for the 2014 season on a regular basis. We averaged around 150 consumers per market for the 2013 season. For the 2013 and 2014 season we worked with the farmer venders at the markets to gather data. We estimated that a consumer spent on average of \$10.00 at the market. We averaged about 150 people which we would have generated about \$1,500.00 in sales for the farmers per market. We are estimating for the total 12 weeks for the 2013 farmer market season that we made an economic impact on the local economy of over \$126,000 for our local farmers. These are farmers and venders that are raising or processing only specialty crops. In 2014 we averaged over 200 consumers per market and from the input from the farmers they feel the average sale per consumer was still at \$10.00. We estimate a total \$2,000 in sales per market for the 2014 season.</p>
Lessons Learned:	<p>In 2013 we had a few challenges. The big one was the farmers market in Ohiopyle. We had the farmers to start the season but we never got the visitors or consumers to be there to support the farmers and the market like the other markets. We average over 150 consumers per market that included the Ohiopyle farmers market. Our plans for 2014 are not to reopen the market in Ohiopyle market and look at a different community to hold the seven markets. We have been contacted by a number of communities to start one in these areas they are Fairchance, Smithfield, Mill Run Area, California area in Pa, and Perry Township. We are planning to explore any and all possibilities for a future site.</p> <p>For the 2014 season we continue to market to the consumer where they can purchase fresh locally grown fruits and vegetables from the farmers at the farmers markets. In 2014 we averaged over 200 consumers per market and from the input from the farmers they feel the average sale per consumer was \$10.00. Another area is finding two new locations for the markets we will have that in place by first of May or June of 2015 to be able to start our marketing campaign on the consumption of fresh fruits and vegetables. The other is getting another staff person in place by May 2015 to be ready to kick off the 2015 season.</p>
Contact Person:	<p>Robert C. Junk, Jr. Fay-Penn Economic Development Council Local Economy Manager Phone 724-437-7913 ex.227 Fax 724-437-7315 E-mail: bobj@faypenn.org Web site http://www.faypenn.org</p>
Additional Information:	N/A
Project Title:	How Mushrooms Can Be Part of 'MyPlate' in School Meals, Project 26
Project	The mushroom industry identified a new concept that will expand the market for mushrooms with new

<p>Summary:</p>	<p>uses in school meal programs, an untapped area for mushrooms. Rather than replacing students’ favorite foods, the concept originally called “swapability” and now branded as “blendability” was accomplished by developing meal options that use mushrooms as a substitute for a percentage of the traditional protein component in meals like fajitas, chili, sloppy joes, burgers and tacos.</p> <p>While not thought of as a “kid-friendly” food, mushrooms have been shown through this project to be versatile as a vegetable and as an ingredient to enhance other foods, resulting in new and desirable meal choices in the school lunch program. The project is both timely and important in that it ties in to existing USDA Food and Nutrition Services’ recipes as well as new guidelines and requirements.</p> <p>This Specialty Crop Block Grant project studied the feasibility of introducing mushroom-blended menu items into school meals. It met three of the program area priorities for 2012 – market development, technology and innovation in distribution channels, and nutrition knowledge and consumption of specialty crops. This project built upon ongoing industry initiatives to help reduce obesity in the next generation by exemplifying “MyPlate” tenets – serving required protein but with fewer calories, fat and sodium. Partnership with the mushroom industry is laying the groundwork for suitable product availability while also determining challenges to school food service acceptance and implementation.</p> <p>This project has also opened new markets for the mushroom industry which will provide long-term, sustainable economic vitality to the industry.</p> <p>Information developed in part by this project is available at: http://mushroomcouncil.org/school-nutrition http://mushroominfo.com/schoolrecipes/ http://www.mushroomsinschools.com/</p>
<p>Project Approach:</p>	<p>The approach to this project was to look at ways mushrooms could “beef” up school lunches while not exceeding calorie restrictions set by the USDA in their Nutrition Standards in the National School Lunch and School Breakfast Programs. Strategies were developed that would make introduction and adoption by school food service directors and personnel as simple and straightforward as possible.</p> <p>Build Strategy and Positioning for Products: Project directors (AMI, Mushroom Council, and consultants) developed a strategy to encourage school food service directors to incorporate mushrooms in school meals by positioning the products as easy to prepare, healthy and cost-effective.</p> <p>Strategy:</p> <ul style="list-style-type: none"> • Project coordinators worked with recipe developers to alter existing USDA recipes but meet the current and forthcoming USDA school meal guidelines. • A mushroom bendability cost saving calculator was developed to demonstrate the potential cost savings available to school food service directors. <p>Positioning:</p> <ul style="list-style-type: none"> • Mushroom swap ability will allow food service directors to serve fuller portions while maintaining calorie caps, and also to serve bigger portions while keeping meat/meat alternate maximums. • Adding mushrooms will meet three sodium reduction benchmarks that will be implemented in 2014. Mushrooms add flavorful umami to dishes, which would allow food service directors to reduce salt while maintaining flavor. • The market price for mushrooms is lower than the market price for meat, allowing food service directors to save money on meals while also increasing portion size.

[See Attachment 1 – Creating “Tray-Delicious” Solutions for Students] Available Upon request
Develop Pilot Recipes:

Ten recipes were developed or modified from USDA recipes in which mushrooms were blended with meat or turkey. Each recipe is available at: <http://mushroominfo.com/schoolrecipes/>

1. Meatballs: Approximately a 50/50 mushroom-to-meat ratio; one serving provides one meat/meat alternative and ¼ cup other vegetables.
2. Tacos: Approximately a 47/53 mushroom-to-meat ratio; one serving provides 1.5 ounces of meat/meat alternative, 1/8 cup other vegetables, and additional vegetable servings depending on what taco toppings are used (such as salsa and peppers).
3. Beef Stroganoff: Approximately a 19/33 mushroom-to-meat ratio; one serving (or ¾ cup) provides 1.5 ounces of meat/meat alternative and 1/8 cup other vegetables.
4. Sloppy Joes: Approximately a 50/50 mushroom-to-meat ratio; one serving (or one sandwich) provides 1.5 ounces of meat/meat alternative and 1/8 cup other vegetables, and offers 21 percent fewer calories, 27 percent fewer fat, and 57 percent less sodium.
5. Chili Con Carne: Approximately a 50/50 mushroom-to-meat ratio; one serving (or ¼ cup) provides 1.5 ounces of meat/meat alternative and 1/8 cup other vegetables.
6. Turkey and Mushroom Meatloaf: Approximately a 40/60 mushroom-to-meat ratio; one serving provides 1.5 ounces of meat/meat alternative and 1/8 cup other vegetables.
7. Taco Pie
8. Turkey and Mushroom Spaghetti
9. Turkey Burger
10. Beef Burger

Test Pilot Recipes:

Mushroom-blended recipes were tested by the school nutrition consultant and project coordinators in a variety of settings for different audiences.

- Sampling was conducted at the US Department of Agriculture for approximately 20 Agriculture Marketing Service and Food and Nutrition Services staff. These decision makers were presented with “typical” meal options featuring several of the recipes.
- At the 2012 and 2013 School Nutrition Association’s annual conferences, blended menu items were sampled by hundreds of the nation’s school food services professionals.
- At the 2012 and 2013 Produce Marketing Association’s Food Service Conference, mushroom-blended recipes developed for school food service won competitions judging the most innovative, healthy and best tasting entrée which highlighted produce as Center of the Plate. Judges included a panel of children.
- A school food service supplier of beef burgers partnered with project coordinators to develop a pre-made burger using 30 percent IQF mushrooms. These burgers were sampled in school districts where the supplier had current contracts.
- At a number of mushroom grower/shipper events, blended burgers and meatballs were sampled to demonstrate the new value-added products that could be made from the fresh mushrooms these grower/shippers produce.

Develop Nutritional Analyses:

The nutritional analyses for the specific blended products were developed and show meals that are low in calories, sodium, fat and cholesterol, and a source of Vitamin D, potassium, B vitamins, and other antioxidants. When compared with USDA Recipe D-27, Beef Meatball, the mushroom and beef meatball has 35 percent fewer calories, 44 percent less fat, 52 percent less saturated fat, and 20 percent less sodium. In addition, the nutritional analysis found that the mushroom-blended beef meatball added 1/8 cup other vegetables, maximized the meat portion, and removed the grain serving.

When analyzing the mushroom and beef tacos with USDA Recipe D-13 (beef tacos), the blended meal

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	<p>contributes to three vegetable subgroups, removes the grain serving, maximizes the meat portion, and reduces calories, fat, saturated fat, and sodium by an average of 20 percent.</p> <p>The availability of this information for school food service is essential. Regardless of taste, the nutritional analysis is key to acceptance and usage by the professionals who are responsible for following the USDA requirements.</p> <p>Prepare Feasibility Report:</p> <p>The project coordinators prepared a PowerPoint presentation that is available to the mushroom industry and school food service personnel outlining the feasibility of incorporating mushroom products into school meals. Additional information is also available at http://mushroomcouncil.org/school-nutrition and http://mushroominfo.com/schoolrecipes/</p> <p>[See Attachment 2 – Making Mushrooms Part of MyPlate - Feasibility Report] Available Upon request</p>
<p>Goals and Outcomes Achieved:</p>	<p>The goal of developing and introducing mushroom-blended menu items to the school food service industry by the mushroom industry was accomplished.</p> <p>Outcome measures were:</p> <ul style="list-style-type: none"> • Ten pilot recipes were developed. Nutritional analysis was completed. • Recipes were tested and approved by decision makers. • Tested recipes in-house and provided sampling opportunities for decision makers at USDA, to school food service professionals, beef processors and students. • Recipes have been made available to the industry and interested food service professionals. • Developed a feasibility report that can be disseminated to both mushroom suppliers and school food service professionals. • Recipes and the feasibility report are available to all mushroom suppliers so they can individually work with school districts. • The USDA has added frozen mushrooms to the list of USDA Foods available for schools to purchase using USDA Foods entitlement funds. • A school food service provider of hamburgers is selling the mushroom-blended burgers to schools. • Messaging that mushroom industry can use in working with school foodservice is available. <p>Additional markets for both fresh and processed (IQF) domestically produced mushrooms are being created.</p> <p>The blend ability concept which includes these recipes for school meals, as well as other foodservice and consumers, is publicized to the mushroom industry in several ways:</p> <ul style="list-style-type: none"> • The "Mushroom Channel" blog features an easily accessible "Blend ability" category, that when clicked will bring up all the blog posts that pertain to blend ability. • The "MushroomInfo.com" website has a recipe category for all "blend ability" recipes. • The "Mushroom Channel" YouTube channel features our instructive "blend ability How To" video. More blending videos are in the works. • The "Mushroom Channel" also has several social networks we use to disseminate information on blend ability including Facebook, Twitter, and Pinterest. • The "Mushrooms On The Menu" website features a page dedicated to educating chefs and the foodservice industry on the benefits of blend ability. • The "Mushroom Council" website (which is public in nature, but meant for the mushroom industry to use as a resource), has a blend ability page that features all of our materials. Industry can use these resources as they see fit. <p>In addition, information about using the blend ability concept in school meals is disseminated directly to the mushroom industry through an internal industry e-mail list, quarterly webinar updates by the Mushroom Council, at industry meetings and in Mushroom News magazine articles.</p>

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	It is estimated that more than 250 individuals involved in the mushroom industry and an even larger number of individuals involved in school foodservice have been made aware of this program.
Beneficiaries:	<p>Beneficiaries include students and school food service personnel, who have the potential for healthier school lunch options; the USDA, which can use the recipes that were developed to offer more healthy options; meat product suppliers who can offer more options such as the mushroom-blended burgers which promotes healthier eating in schools; and growers, shippers and processors of the domestic mushroom industry.</p> <p>Expanded food service marketing opportunities through school meal programs will continue to strengthen the economic well-being of the mushroom industry. Pennsylvania has 67 growers who will have more marketing opportunities for their crop, including product that is more appropriate for a value-added application. It is important to note that USDA purchases must be domestically produced and growers audited by the USDA Agricultural Marketing Service under a food safety program such as the Mushroom Good Agricultural Practices (MGAP) program.</p>
Lessons Learned:	<ol style="list-style-type: none"> 1. Blended mushroom and meat items taste as good if not better than traditional recipes. 2. Reaching and getting information to food service directors about mushroom-blended items is challenging. In-person visits and taste-testing have proven to be successful, as have showcasing the recipes and marketing materials available. And once they try them, all have indicated a willingness to serve them to the students and a belief that the items would be popular with students. 3. Availability of the Mushroom blend ability Cost Saving Calculator to food service directors has proven to be an effective way to show just how much they can save by using mushrooms in meals. It was developed in an Excel spreadsheet [See Attachment 3 – Mushroom blend ability Calculator], making it easy to plug in numbers and see the cost savings immediately. 4. Opportunities exist for a wide range of mushroom cuts and products – fresh, whole, diced and frozen. 5. Selling fresh mushrooms to districts with “scratch cooking” is an opportunity through the avenues available for schools to purchase fresh produce, such as Farm to School. 6. The most immediate impact has been with beef processors who have enthusiastically embraced the blend ability concept and made 70% beef/30% mushroom burgers available using their USDA commodity purchase beef. 7. Meat processors will use individually quick-frozen (IQF) mushrooms, providing a significant market for lower grade domestic mushrooms as a value-added product. 8. Challenges related to child nutrition labels, especially as it related to the visibility of the mushrooms in the blended burgers. Visibility was an issue for counting the mushrooms as a vegetable serving in the mushroom burger. However a product formulation statement was added to allow the mushrooms credit as a 1/8 cup vegetable when served with another 1/8 cup visible vegetable. Future products, such as meatballs, marinara and tacos, are not expected to need this product formulation statement.
Contact Person:	<p>Laura Phelps American Mushroom Institute 202/842-4344 lphelps@mwmlaw.com</p>
Additional Information:	<p>Information for school food service and the mushroom industry produced through this grant, as well as industry initiatives through Mushroom Council funding, can be found at: http://mushroomcouncil.org/school-nutrition http://mushroominfo.com/schoolrecipes/ http://www.mushroomsinschools.com/</p>

<p>Project Title:</p>	<p>Integrating the Food Safety Modernization Act with the Mushroom Industry Food Safety Initiative, Project 27</p>
<p>Project Summary:</p>	<p>The passage of the Food Safety Modernization Act (FSMA) in 2010 prompted mushroom growers and packers to re-examine their own food safety practices which were focused around the commodity-specific Mushroom Good Agricultural Practices program (MGAP). Previous Specialty Crop Block Grants (SCBG) had helped to develop the MGAP program, design and implement food safety educational and training tools, and most recently, provide basic knowledge and understanding of the proposed rules implementing FSMA.</p> <p>This project built on previous efforts by identifying the challenges posed for the mushroom farm community by the new FSMA standards and by bringing together industry experts. This group prioritized industry needs in order to adapt to issues such as hazard analysis, risk-based preventative controls, performance standards and standards for produce safety.</p> <p>With the publication of the proposed FSMA rules in January 2013, the project was both important and timely in order to provide growers and packers with the tools they need to adequately implement and comply with the new rules.</p>
<p>Project Approach:</p>	<p>Activities and tasks included:</p> <ul style="list-style-type: none"> • Facilitated AMI Food Safety Task Force sessions to identify gaps in the MGAP standard resulting from new FSMA regulations • Partnered with Penn State Food Science and Extension to assess industry needs • Updated existing tools and developed new materials to provide growers, packers, shippers, processors and service providers with clear and consistent education and training on FSMA regulations • Planned group training sessions to deliver education and training tools <p>Five meetings of the AMI Food Safety Task Force (Task Force) were held. These meetings brought together the leading industry experts in food safety matters to discuss issues relating to food safety challenges on farms and in packinghouses. The Task Force discussed new requirements resulting from the FSMA regulations including packinghouse sanitation (both worker training and verification methods for sanitation procedures), supplier verification and third party contractor training. The Task Force also worked with Penn State University faculty to develop a list of research priorities and to rank the projects.</p> <p>Benefits of this project targeted mushroom growers, packers and shippers. Materials produced under this project will be shared with growers outside of Pennsylvania through funding provided by the Mushroom Council.</p> <p>As for project partners, significant contributions came from Penn State faculty and Extension personnel for research and training assistance in food safety practices and specifically MGAP and FSMA integration and Spanish translation. Other partners include Food Safety Consulting & Training Solutions for program development, delivery and Spanish translation. The Mushroom Council has also played a vital role in providing additional funding for research and distribution of training materials to mushroom farms outside of Pennsylvania.</p>

<p>Goals and Outcomes Achieved:</p>	<p>The goal of this project was to facilitate understanding of the new requirements of the Food Safety Modernization Act by providing all segments of the mushroom farm community – growers, packers, shippers, service providers and processors – with the tools needed to comply with the new law, and therefore, maintain their markets.</p> <ol style="list-style-type: none"> 1. DVDs which included a taping of the Train-the-Trainer Packinghouse Sanitation session, the Packinghouse Sanitation Kit with all training materials were produced, publicized and distributed to mushroom packinghouses (January 2014). These materials did not exist before, so all 26 packinghouses in Pennsylvania now have a standardized training program. A survey of the packinghouses shows that more than 350 employees have been trained using these materials. New employees are also trained with these materials. 2. Materials for food safety training for employees of third party contractors have been developed. Materials reflecting the standards and guidelines of the Mushroom Good Agricultural Practices program for this group of workers at farms and packinghouses were not previously available. When finalized and presented in a Train-the-Trainer format, growers will be able to verify that the employees of third party contractors who work on their farms are properly trained in food safety measures. A one-day training session will be held in English and Spanish in December 2014 in Kennett Square, PA. 3. A research agenda was developed to match needs created by FSMA requirements. Using a prioritized list of research projects for Penn State, AMI’s Food Safety Task Force worked with industry partners to secure funding for the top rated project. A section of the proposed FSMA rule specifies new requirements for documenting validated sanitation preventative controls, including cleaning and sanitizing of food contact equipment. <p>As Dr. Luke LaBorde, who will conduct the research, noted in a September 2013 <i>Mushroom News</i> article, “Under FSMA, facilities that slice fresh mushrooms will be mandated to provide evidence that the equipment they use to slice mushrooms can be effectively cleaned and sanitized such that it will not become a source of contamination. For these reasons, the American Mushroom Institute’s Food Safety Task Force has identified validation of disinfection treatments for mushroom slicers as a priority research area. FDA has established a “zero tolerance” standard for ready-to-eat foods that support the growth of <i>L. monocytogenes</i> (FDA 2008). As government and commercial buyers increase their scrutiny of fresh produce for the presence of <i>Listeria</i>, the mushroom industry must have validated methods in place for sanitization of food contact mushroom slicers.”</p> <p>Based on the results, recommendations will be made to the industry for slicer thermal sanitization procedures, including how the design and fabrication of mushroom slicing heads can be improved so that, in the future, cleaning and sanitization procedures can be made more efficient and effective.</p> 4. Grant resources were used to publicize and promote the Penn State Food Safety Workshop featuring English and Spanish sessions in March 2014. AMI members reported that their Spanish-speaking employees who attended the Food Safety workshop conducted solely in Spanish have shown a better understanding of food safety as a result. 5. Another FSMA requirement identified as an industry need was the ability to conduct a recall. The groundwork for Crisis Communication and Recall Readiness workshop has been completed and is
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	<p>scheduled for December 2014 in Kennett Square, PA.</p> <p>6. As part of the on-going effort to update existing tools and develop new materials, (1) a Best Practices Power Point on food safety practices in the mushroom industry was created and uploaded to the AMI website for easy access for growers to provide to customers and for public information, (2) a white paper on washed mushrooms used in foodservice operations was developed, and (3) educational materials on environmental testing and final product testing were made available to growers and packer/shippers.</p>
Beneficiaries:	<p>There are 66 mushroom farm operations in Pennsylvania, which lead the nation in production with 571 million pounds of mushrooms representing a farm gate value of \$540 million. A food safety outbreak could devastate the economic viability of the industry and result in a reduction of its workforce. This project directly affects each of these farms. There are approximately 26 mushroom packing operations in Pennsylvania. Each of these farms and packinghouses are able to provide documentation to their customers of an established food safety program.</p> <p>When polled, the 18 members of the Task Force from Pennsylvania said the farms and packinghouses where they work were prepared for implementation of the Food Safety Modernization Act, even though the rules are not finalized and there is a phase-in period. Approximately 85 percent of farms in Pennsylvania have successfully passed a MGAP audit. In addition, consumers benefit from having a safer food supply.</p>
Lessons Learned:	<p>The regulatory process was slow to start with the four proposed rules to implement the Food Safety Modernization Act not being published until January 16, 2013 and July 26, 2013. Then the deadline for comments was extended until November 15, 2013. Given the complexity of the proposals, this was beneficial to all involved, yet the project start date was significantly delayed.</p> <p>This project again shows that industry-wide, commodity-specific collaboration can provide significant benefits to the entire industry. Sharing of knowledge, experience, expertise and resources helps everyone rise to a higher standard. Through this and previous food safety projects, mushroom growers, packers and shippers have access to all program elements that will lead to compliance with the new requirements of the Food Safety Modernization Act. This will produce stronger and expanded food safety programs in their operations and a heightened sense of security by using proven food safety systems. By giving clear guidance on integrating the current Mushroom Good Agricultural Practices program and other food safety initiatives with the Food Safety Modernization Act, the mushroom industry will focus on implementation as opposed to interpretation.</p>
Contact Person:	<p>Laura Phelps American Mushroom Institute 202/842-4344 lphelps@mwmlaw.com</p>
Additional Information:	<p>N/A</p>

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<p>Project Title:</p>	<p>Fine Tuning the production methods required to make the seascape strawberry a viable and profitable PA commodity, Project 30</p>
<p>Project Summary:</p>	<p>Day neutral strawberries are increasing in quality and availability of plant material but how to grow them in a manner that produces acceptable yields without excessive inputs has been the greatest challenge. The specific problem addressed was how to maintain the greatest yields over the longest number of days. This project is important to PA agriculture because after the 4th of July the value of strawberries increases dramatically. The strawberries that come into Pennsylvania from New England and Canada are considerably more expensive. The quality of California strawberries decreases from July to October and makes for a great opportunity to grab this market.</p> <p>This project builds on the growing methods discussed in the previous SCBG; production, manipulation and marketing of Seascape strawberries, in that project we learned the basics and discovered many of the pitfalls associated with growing day-neutral strawberries. This project enhanced that work by learning many labor reducing techniques and how to avoid yield lowering environmental and biological pressures.</p>
<p>Project Approach:</p>	<p>The 24,000 bareroot Seascape strawberry plants were planted both in the spring of 2013 and 2014. The plants were divided into 4 planting's ; both seasons; shooting for planting dates of April 1, May 1, June 1 and July 1. After planting the emerging flowers were removed two times in order to get the plants well established and to build up the size of the crowns.</p> <p>This system of production was the most beneficial change in cultural practices over the previous SCBG "production, manipulation and marketing of seascape strawberries". It reduced the labor of removing the flowers 3, 4 & 5 times which was the practice recommended on the previous plan in order to maintain consistent yield into the fall. It also greatly reduced the amount of expense of maintaining weed and insect control since a large percentage of the planting did not have to be maintained while it was not producing fruit.</p> <p>The most favorable development we experienced was that each planting produced high quality fruit starting 60 days after planting, when one planting yields began to wane another plantings yield was on the rise. This resulted in consistently high quality fruit over a harvest season extending from the 4th of July until a killing freeze in November of both 2013 and 2014.</p> <p>During the 2013 growing season we implemented 3 different fertilizer systems and kept extensive records on fruit size and brix levels. No significant difference was observed among the different fertilizer programs. The most favorable development observed was that when weather conditions of 70 degrees Fahrenheit days and nights in the 50's were prevalent and a planting was coming into strong production fruit size increased significantly.</p> <p>The project partners were of great importance in emanating our findings and stirring interest in other farmers putting in plantings of day neutral strawberries. Scott Guiser of Bucks county extension ran our first twilight meeting during the summer of 2013 and introduced me to Jeff Stolfus, Lancaster county educator who ran our 2nd twilight meeting in September, 2014. Both meetings were well attended especially the Sept. 2014 meeting due to an email blast from Nourse farms; the northeast premiere strawberry plant supplies; inviting their customers to attend the meeting. That meeting was also held in conjunction with a DVC alumni gathering in which Russell Reading, dean of agriculture and former acting PA Secretary of Agriculture, was in attendance.</p>
<p>Goals and Outcomes Achieved:</p>	<p>The fields were meticulously maintained from planting through harvest with special attention to: planting depth, flower removal, runner removal, weed control, irrigation, fertigation, row cover application and removal and implementation of the DuBois low tunnel system, and application of insecticides and fungicides. We also monitored soil moisture levels, fruit size and fruit brix levels. See attached results from this monitoring data.</p> <p>We greatly improved the consistency of available fruit and the quality of fruit over a much longer growing</p>

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	<p>season. We were able to supply our retail market and those of SIW Farm and Produce Hut with PA grown strawberries consistently from the 4th of July to Mid November. We also provided fruit to Wolff’s Apples House, Pete’s Produce and Leola Produce Auction on a sporadic basis. All locations received a very favorable response with many customers returning again and again due to their consistently exceptional flavor and quality. All locations sold the fruit for \$4.99 a pint with almost no opposition to the pricing. Our goal was to reach more potential growers and have a true impact on positioning day neutral strawberries as a significant player in crops grown on PA farms. We feel we are making headway; we receive calls monthly and sometimes weekly asking about our growing techniques. Nourse farms has indicated that request for day neutral strawberry plant material has steadily increased after the past 4 years.</p> <p>We also offered seascapes to our PYO customers on a more consistent basis and we have requests for picking over a longer and longer season. Our customers no longer associate strawberries with June and they are willing to pay more for strawberries grown in July, August, September and October. We charge \$3.99 per pound for strawberries after the 4th of July.</p> <p>We estimate that approximately 100 growers are now experimenting with or growing day neutral strawberries. If each of them reach 5 retailers and each retailer reaches 100 customers that equates to 500 retailers and 50,000 individual customers who have been introduced to the eating quality of Seascape Strawberries.</p>
<p>Beneficiaries:</p>	<p>The retail markets that have access to Pa grown day neutral strawberries have a great benefit in that it gives their customer base a reason to seek them out. It also benefits the growers because the strawberries demands such higher prices per flat, and if they sell other crops; the wholesalers that come for their strawberries are likely to purchase other commodities.</p> <p>The greatest benefit is the consumer; we are hearing often that our customers generally did not eat strawberries July through Nov. due to a decrease in quality, now they eat them more often. More fruit equates to better health.</p> <p>I compare it to the introduction of the honeycrisp apple. It is earlier and superior in eating quality compared to other apple varieties, thus resulting in consumers buying more apples over a longer growing season. The potential impact is enormous, affecting all levels of the production system from equipment sales, chemical sales, supplies, fertilizer, packaging and advertising.</p> <p>I spoke at the 2015 New Holland Vegetable Day on Jan, 19th 2015. There were approximately 200 farmers and farm industry professionals in attendance. I presented my finding on “Fine Tuning the production methods required to make the Seascape Strawberry a viable and profitable PA commodity”.</p> <p>The attendee’s at the meeting seemed very receptive to grow more day neutral strawberries for the 2015 growing season. As a result I feel the number of customers who have been exposed to PA grown Seascape Strawberries could easily double in 2015. That would equate to 100,000 customers. We at Linvilla are expanding our planting of seascapes by 25% for 2015</p>
<p>Lessons Learned:</p>	<p>The staggered planting dates was by far the greatest lesson learned. It spread out risk; while making quality fruit available over a longer growing season. It had the greatest effect on reducing production cost compared to planting the entire field on the same day and trying to extend harvest through multiple pickings of flowers and runners.</p> <p>We also learned that any planting after April 25th will result in fruit being available for harvest for 60 days. This is important information to know for marketing your products. This information is also valuable for the future growth of this commodity; because I can think of no crop with a higher upside return on investment over such a short investment of time.</p> <p>It seems when it comes to unexpected outcomes the effect of varying fertilizer programs was the most surprising. I thought different programs would affect fruit size, fruit flavor or fruit firmness but no program</p>

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	<p>had a substantial benefit or detriment over another. Plant vigor and weather seem to be the greatest factors. The largest berries are consistently produced in the latest planting, but there is not enough growing season with that planting date to make significant return on investment. The July 1st planting can be easily overwintered and harvested in mid to late May the following growing season.</p> <p>Overall it has been a very rewarding experience and we are thankful to the PA specialty crop program for their support. We will continue to plant and promote seascape strawberries and look forward to the day when they will be a household word.</p>
Contact Person:	<p>Norm Schultz Farm Manager Linvilla Orchards, Inc. norm@linvilla.com Nicolas H. Ellis, MS, PhD Independent Agricultural Consultant Board Certified Entomologist nhellis2008@gmail.com</p>
Additional Information:	<p>Fine Tuning the production methods required to make the seascape strawberry a viable and profitable PA commodity was in need of additional funding to complete the project as originally intended. In order to best use the funds PDA requested that \$20,000 be moved from PDA, PA Preferred State Branding Program to support a project entitled Fine Tuning the production methods required to make the seascape strawberry a viable and profitable PA commodity, to be completed by September 2014.</p>



Project Title:	Muncy School District Nutrition and Local Food Education Program, Project 32
Project Summary:	<p>With the ubiquitous presence of unhealthy fast foods and the increased amount of time spent in front of a multimedia screen, the children and parents of today are finding it more and more difficult to make healthy lifestyle choices and are becoming further removed from the intricate web of life that supports all living beings on the planet. This project has helped students and parents make healthier choices and connect them with the local farms that grow our food. Specifically this project focused on nutrition knowledge and consumption of specialty crops, as well as, market development for local specialty crop growers. This was accomplished through school lunch offerings, parent cooking classes, student cooking classes, parent food preservation classes, farm tours, school gardens and parent gardening and composting classes. This project has given our community members the tools to improve their health, as well as the economic health of our local specialty crop growers.</p> <p>This project has built on the success our school has had over the last three years with the Pennsylvania Healthy Farms, Healthy Schools Grant, which focused on kindergarten students and their parents. With the SCGP, we were able to reach beyond the kindergarten class into the whole school and surrounding community.</p> <p>Most people in our community are completely disconnected with where their food comes from. This project has helped students and their parents have a better understanding of the types of food that can be grow locally and has encouraged them to enjoy the benefits of healthy, local foods. I am a kindergarten teacher and a vegetable farmer. As a small-scale organic vegetable farmer, I am painfully aware of the difficulty of achieving financial success in our current food environment that promotes large-scale industrial agriculture that ships food from all over the world with little regard for the hidden costs within that policy and without concern for our local economic system. This need for people to connect with local farmers and support the local economy is significant and should be addressed as soon as possible. This project has begun to do just that.</p> <p>This project focused on promoting the consumption of fruits and vegetables. Funds were not used to promote beef, poultry or eggs; there is no need to encourage the consumption of these items, as</p>

	<p>Americans are already over-eating them. As a society, we need to find ways to increase the amount of fruits and vegetables people eat. A 2011 report from the Center for Disease Control and Prevention shows that children’s consumption of fruits and vegetables is considerably below the recommended level. This project has increased the consumption of fruits and vegetables by our students, which is in line with SCGP goals, but more importantly will improve the health of our student population.</p>
<p>Project Approach:</p>	<p>This project started in October 2012 and ran through September 2014. We used the following activities to achieve our stated goals:</p> <p><u>Local Lunches and Snacks</u> Work Plan Completed- We celebrated a local harvest and healthy lifestyle week by featuring local, healthy foods, with no industrial processed foods available for the students to choose from. We promoted these special meals through an advertising campaign and a school-wide assembly. We also used parent volunteers as local food coaches and cheerleaders during this week. These parents encouraged students to try new foods and discussed the importance of eating healthy and eating local. With our grant, we purchased a salad bar, which offered students the choice of locally grown vegetables and fruits. We offered the salad bar once a week during the months of October 2012 through January 2013 and then again during the fall of 2013 and 2014. The salad bar was stocked with fresh, local, organic vegetables. The salad mix used was not your typical iceberg lettuce or even a common baby greens mix. Instead, the salad had many seasonal greens that had a stronger flavor and taste, such as kale, mustard greens and chard. Students had the chance to try food items that they previously had no exposure to. We used an “aggressive marketing campaign,” rewarding students who selected the salad bar with stickers, seashells, pencils, balls and anything else we could think of. We did not use grant funds for these simple prizes, but they were donated by staff members. We also featured special guest servers, along with weekly announcements and posters to promote the salad bar. To help students make the connection of where their food came from, we worked with our produce supplier, Wolf Hollow Farm. We posted pictures of their farm by the food they provided. We also used labels to identify local and organic items. We continued to use those same labels throughout the year to remind students when we were sourcing local and organic foods. Goals and Outcomes Achieved- During our local harvest week, we did see an increase in students and teacher purchasing their lunch from the cafeteria. Before the harvest week, the school served an average of 389 meals per day and during harvest week; we served 403 meals per day, a 4% increase. When we offered the salad bar, we had around 25% of the students choose it. This is a HUGE number considering the fact that the salad bar selection was “competing” against food items such as pizza and chicken nuggets. In regards to our local lunches, salad bar and local snacks, we were very successful at exposing students to fresh, organic and local foods, some of which they had never had before. It can be difficult to motivate young children to try new food items, but we were able to do it!</p> <p><u>Parent Cooking Class</u> Work Plan Completed- The organization Cooking for Real presented a cooking class for our students’ parents. The class featured a hands-on demonstration and a tasting afterwards. See next page for the invitation that was sent out. Expected Measureable Outcomes - Parent cooking classes- participation numbers and participant evaluation forms. Goals and Outcomes Achieved - 20 parents attended and each left with three \$20 gift certificates to three local farms. Parents also filled out class feedback forms (see next page for a sample.) The feedback we received from the parents helped us develop future project plans.</p> <p><u>Student Cooking Classes</u></p>

Work Plan Completed- Again we partnered with the organization Cooking for Real to provide cooking instruction. This time it was for our kindergarten students. Yvonne from Cooking for Real, came to all four of our kindergarten classes and talked with the students about whole foods, where foods come from and making healthy food choices. She also taught them some basic kitchen skills. One by one, she brought the students up the table to grate the potatoes, mix the ingredients, and work the griddle. Together they made delicious sweet potato and kale pancakes. Below are pictures of Yvonne’s class and examples of our student projects.

Expected Measureable Outcomes- assessment of student knowledge through student a project where they will sort foods into two groups, whole foods and processed foods. We will have a target of 85% accuracy.

Goals and Outcomes Achieved - After Yvonne was finished, the students worked on a project to sort whole food and processed foods from newspaper ad pictures with 95% accuracy. 90 students participated.

Farm Tour

Work Plan Completed – During October 2013, all four kindergarten classes totaling 88 students attended the Great Potato Dig at Martin’s Homestead. See parent letter below for details. Students were able to take home potatoes for their families to prepare and eat. We also took 300 lb. of potatoes to our school cafeteria, where they prepared them for all of the 580 elementary students.

Expected Measureable Outcomes - student projects detailing understanding of PA agriculture.

Goals and Outcomes Achieved – Students completed projects highlighting their learnings from the farm tour. See below for details.

School Gardens

Work Plan Completed- Our kindergarten students worked with a local farmer to plant three different gardens at the school, a dry bean garden, a sweet potato garden and a cherry tomato garden.

Expected Measureable Outcomes - number of students working on gardens and number of new gardens established.

Goals and Outcomes Achieved - They got to get their “hands dirty,” while planting, tending and finally harvesting and eating the produce from their garden. We used our garden harvest, along with ingredients from local, organic farms to make a delicious chili. Each of the four kindergarten classes, harvested dry beans (new garden), cherry tomatoes and sweet potatoes (new garden) and used those items in the chili. We then entered the chili into our local community’s Chili Cook-Off Challenge. We even got a newspaper front page article written about us! 90 kindergarten students participated in the gardening activities. See details below...

Parent Gardening Class

Work Plan Completed- A master gardener gave a class on gardening and composting. Participants left the class with vegetable plants and compost from a local nursery.

Expected Measureable Outcomes- number of new gardens started or expanded as a result of classes.

Goals and Outcomes Achieved - 26 parents attended the class and all reported back that they started a new garden or expanding a current one. See below for details...

Parent Food Preservation Class

Work Plan Completed- With remaining grant funds, we were able to add another component to our activities list. Based on parent feedback during our cooking and gardening classes, we developed a food preservation class. See below for details.

Goals and Outcomes Achieved- We had 24 parents attend the class and take home produce from five different local farms. Participants were delighted to get these vegetables and have the opportunity to try

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	their hands at preserving the harvest. See below for parent feedback and pictures.
Goals and Outcomes Achieved:	During our local harvest week, we did see an increase in students and teacher purchasing their lunch from the cafeteria. Before the harvest week, the school served an average of 389 meals per day and during harvest week; we served 403 meals per day, a 4% increase. When we offered the salad bar, we had around 25% of the students choose it. This is a HUGE number considering the fact that the salad bar selection was “competing” against food items such as pizza and chicken nuggets. In regards to our local lunches, salad bar and local snacks, we were very successful at exposing students to fresh, organic and local foods, some of which they had never had before. It can be difficult to motivate young children to try new food items, but we were able to do it!
Beneficiaries	<p><u>Community members to include:</u> 580 Myers Elementary Students 100 Parents</p> <p><u>Local Farms to include:</u> Wolf Hollow Farm Wentzlers Orchards Martin’s Homestead Pine Grove Varieties Starwind Farm Beilers Produce Styer’s Farm Market Beech Grove Farm Fertile Grounds Dancing Hen Farm Mervin Hoover Farm Yule’s Greenhouse Jeremey Erb Farm</p>
Lessons Learned:	<p>The main lesson learned from this project is that it is possible to combine different government agencies to achieve individual goals together. The Muncy School District was the organization that planned and executed this project. The school district benefited by integrating agriculture projects into the school curriculum, helping parents learn more about local foods, gardening, cooking and food preservation. The farming community benefit by selling their produce and by getting more people exposed to their operations. It was a win-win.</p> <p>Unfortunately all of these great things will <i>only</i> happen with grant money. The school district may be excited about these opportunities, but they aren’t going to foot the bill. The farms may be thrilled to get the exposure, but they aren’t going to give their food away. Without grants, there is almost no way local foods will make any headway into our school system.</p>
Contact Person:	John Tewksbury, Muncy School District jtewksbury@muncysd.k12.pa.us
Additional Information:	Muncy School District Nutrition and Local Food Education Program filed a no cost extension on June 30, 2014 until 9/30/2014.

Project Title: Fresh Food Access Project, Project 34	
Project Summary:	<p>SHARE’s Fresh Produce Access Project proposes to sell boxes of fresh produce in Philadelphia’s poorest neighborhoods. Since September 2011, with the support of the St. Christopher’s Foundation for Children, SHARE has been selling “Farm to Families” (F2F) boxes of locally sourced produce to some 1,000 households (including 4,000 individuals) in North Philadelphia. The success of F2F indicates that there is real demand for fresh and affordable produce in Philadelphia’s poorest zip codes. FPA will do the same thing F2F does but in additional low-income neighborhoods thereby opening up previously inaccessible markets to Pennsylvania growers. Because SHARE is a non-profit and takes a lower mark-up, it can price this produce so that it is affordable even as it pays growers competitive prices. The program, which piggybacks on SHARE’s existing food-distribution infrastructure, will create one job at SHARE for a program manager and is projected to have nutritional impact upon the lives of low-income Philadelphians.</p> <p>SHARE’s Fresh Food Program is a response to both poverty and a lack of access to fresh food within the city of Philadelphia. Overall this city of 1.5 million persons has a 24 percent poverty rate, and one third of all children in the public schools live at or below the Federal poverty income guidelines (FPIG.) Along with this poverty comes a lack of access to fresh foods which results in rates of adult obesity and diabetes of 30 and 10 percent respectively.</p> <p>To address access issues and encourage fresh food consumption, SHARE proposes to expand the fresh food program it has been running in a limited number of North Philadelphia’s poorest zip codes to the rest of the city.</p> <p>This project is important to low-income Philadelphians who have a hard time getting enough affordable food and the right foods. This project is important to SHARE because the more buying power SHARE has, the lower it can keep prices in every food program it runs. It is important to Pennsylvania specialty crop producers because it further develops the largest nearest market, helps keep transportation costs down, and creates new, long-term demand for their produce.</p> <p>It is timely for 2012 because</p> <ul style="list-style-type: none"> • Since the economic downturn of 2008, retail fresh produce prices have gone up even as consumer incomes have decreased. • As a non-profit community food resource, SHARE can sell fresh produce at competitive prices while still paying local farmers at rates equal to other distributors. <p>While performing this grant we were able to bring fresh fruit and vegetables to low income families in the Philadelphia area. That included delivery of product and mailings informing the community of this distribution.</p> <p>Short-term goals: SHARE currently sells 220 F2F produce boxes a week through seven host organizations and, as every buyer does not buy every week, over the course of the year the program reaches at least 1,000 households (an estimated 4,000 people.) If the project is funded, those numbers all double.</p> <p>SHARE currently spends \$91,800 a year on produce for its F2F produce boxes, the majority of which is sourced from within the 100-mile food shed (which includes Pennsylvania, Delaware, Maryland, and New Jersey.) Receiving this grant to enlarge the program would guarantee that another \$60,000 would be spent exclusively with Pennsylvania growers.</p>

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	<p>Expanding this program creates one job for a Fresh Food Facilitator (Facilitator) in the City of Philadelphia where the unemployment rate is at nine percent. It also has the potential to increase agricultural employment numbers within the Commonwealth of Pennsylvania.</p>																																																																								
<p>Project Approach:</p>	<p>Since the economic downturn of 2008, retail fresh produce prices have gone up even as consumer incomes have decreased. Thanks to the grant we were able to increase the fresh produce to Philadelphia’s poorest neighborhoods. We were able to increase by 158 junior packages and 305 Grande packages. Also, SNAP participation increase a total of 48% because of this project.</p> <p>As a non-profit community food resource, SHARE can sell fresh produce at competitive prices while still paying local farmers at rates equal to other distributors.</p>																																																																								
<p>Goals Outcomes Achieved:</p>	<p>Accomplishments:</p> <ul style="list-style-type: none"> <p>SHARE Nice Roots Farm Packages</p> <table border="1" data-bbox="334 716 1235 932"> <thead> <tr> <th>Packages</th> <th>Fiscal 13</th> <th>Fiscal 14</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>Junior Package</td> <td>52</td> <td>210</td> <td>158</td> </tr> <tr> <td>Grande Package</td> <td>23</td> <td>328</td> <td>305</td> </tr> <tr> <td>Produce Purchased for Packages</td> <td>\$630.97</td> <td>\$5,282.54</td> <td>\$4,651.57 11.9% increase</td> </tr> </tbody> </table> <p>SHARE Nice Roots Farm Individual Items Purchased through SHARE Package Program</p> <table border="1" data-bbox="334 1005 1351 1335"> <thead> <tr> <th>Item</th> <th>Fiscal 13</th> <th>Fiscal 14</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>White Potatoes</td> <td>162 - 5 lb. bags</td> <td>359 - 5 lb. bags</td> <td>197 bags</td> </tr> <tr> <td>Apples</td> <td>102 - 6 in a bag</td> <td>208 - 6 in a bag</td> <td>106 bags</td> </tr> <tr> <td>Cabbage</td> <td>181 heads</td> <td>268 heads</td> <td>87 bags</td> </tr> <tr> <td>Onions</td> <td>198 - 2 lb bags</td> <td>358 - 2 lb bags</td> <td>160 bags</td> </tr> <tr> <td>Sweet Potatoes</td> <td>280 - 3 lb. bags</td> <td>368 - 3 lb. bags</td> <td>88 bags</td> </tr> <tr> <td>Produce Purchased for Individuals Items</td> <td>\$907.49</td> <td>\$5,531.11</td> <td>\$4,623.62 16.4% increase</td> </tr> </tbody> </table> <p>Farm to Family Food Packages</p> <table border="1" data-bbox="334 1409 1248 1667"> <thead> <tr> <th>Packages</th> <th>Fiscal 13</th> <th>Fiscal 14</th> <th>Increase</th> </tr> </thead> <tbody> <tr> <td>Fruit</td> <td>1,000</td> <td>1,052</td> <td>52</td> </tr> <tr> <td>Junior</td> <td>3,724</td> <td>4,232</td> <td>508</td> </tr> <tr> <td>Grande</td> <td>1,998</td> <td>2,344</td> <td>346</td> </tr> <tr> <td>Produced Purchased for Packages</td> <td>\$80,596.70</td> <td>\$91,529.76</td> <td>10,933.06 88.05% increase</td> </tr> </tbody> </table> <p>SHARE's Farmers Market - Food Purchased for Farmers Market</p> <table border="1" data-bbox="334 1740 1248 1915"> <thead> <tr> <th>Fiscal 12</th> <th>Fiscal 13</th> <th>Fiscal 14</th> <th>Increase from Fiscal 2012</th> </tr> </thead> <tbody> <tr> <td>\$1,867.00</td> <td>\$4,238.90</td> <td>\$8,581.31</td> <td>\$6,714.31 49.39% increase from Fiscal 2013</td> </tr> </tbody> </table> 	Packages	Fiscal 13	Fiscal 14	Increase	Junior Package	52	210	158	Grande Package	23	328	305	Produce Purchased for Packages	\$630.97	\$5,282.54	\$4,651.57 11.9% increase	Item	Fiscal 13	Fiscal 14	Increase	White Potatoes	162 - 5 lb. bags	359 - 5 lb. bags	197 bags	Apples	102 - 6 in a bag	208 - 6 in a bag	106 bags	Cabbage	181 heads	268 heads	87 bags	Onions	198 - 2 lb bags	358 - 2 lb bags	160 bags	Sweet Potatoes	280 - 3 lb. bags	368 - 3 lb. bags	88 bags	Produce Purchased for Individuals Items	\$907.49	\$5,531.11	\$4,623.62 16.4% increase	Packages	Fiscal 13	Fiscal 14	Increase	Fruit	1,000	1,052	52	Junior	3,724	4,232	508	Grande	1,998	2,344	346	Produced Purchased for Packages	\$80,596.70	\$91,529.76	10,933.06 88.05% increase	Fiscal 12	Fiscal 13	Fiscal 14	Increase from Fiscal 2012	\$1,867.00	\$4,238.90	\$8,581.31	\$6,714.31 49.39% increase from Fiscal 2013
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- SNAP Participation

Fiscal 13	Fiscal 14
\$28,369.38	\$58,473.24 48% increase

- FMNP Participation

Fiscal 13	Fiscal 14
\$2,157	\$700.00 Decrease is due to several reasons - several farmers markets have open in our area and Shoprite opened a store around the corner from SHARE

- Vendors

Fiscal 13	Fiscal 14
5	17 29% increase

Outcomes:

- Committed to purchasing \$90,000 in PA Grown Food - Purchased \$110,924.72.
- Committed to selling 14,400 food packages of locally grown produce - Sold 8,166 food packages and 1,561 individuals locally grown items.
- Committed to reaching 8,000 people and reached 17,400.
- Committed to increasing PA growers by 10 and accomplished that goal.

3. General distribution of publications:

- Monthly newsletters letter to food cupboard coordinators - 500
- 5 months --Newsletter to SHARE host site coordinators - 100
- 9 months - Newsletters to SHARE Food Package Program participants - 2,500
- 3 flyers - to food cupboard coordinators, SHARE Food Package participants, and community outreach - 4,500

Beneficiaries:

Benefits of the Fresh Produce Access Project:

- The benefit of the Fresh Produce Access Project provides an opportunity through several different channels for 4,500 people to have access to affordable, locally grown produce.
- FPA supported SHARE to reach out to additional PA growers.
- FPA supported the picking up and delivery of locally grown produce to the neediest people in Philadelphia.

Contact Person:

Steveanna Wynn, Executive Director
2901 West Hunting Park Avenue, Philadelphia, PA 19129
215-223-3028 or swynn@sharefoodprogram.org

Additional Information:

<http://sharefoodprogram.org/>