



PENNSYLVANIA FRUIT NEWS

VOLUME 94

November 2014

NO. 10

INSIDE THIS ISSUE...

Editorial Views	4
Ag Issues Update	5
Be a Model for the Future	8
Young Growers Visit Spiral Path Farm and North Mountain Pastures	9
Pollination Services are Mediated by Bee Functional Diversity and Landscape Context	11
IPM Scouting and Resistance Management and Pesticide Applicator Safety Registration Form	12
Granulate Ambrosia Beetle in Tree Fruit	13
Spray Deposition Profiles in Pome Fruit Trees: Effects of Sprayer Design, Training System and Tree Canopy Characteristics	13
Introduction to Hard Cider Production	14
Preharvest Factors that Affect the Development of Internal Browning in Apples cv. Cripp's Pink: Six-years Complied Data	15
Ag Literacy For Growers Registration Form..	16
Georgia Blueberry Production Outgrows Peaches	17
Fruit and Vegetable Production Techniques Spanish Session Registration Form	18
Additional Berks County Townships, Communities Quarantined Because of Spotted Lanternfly	19
President's Day Fruit Growers Educational Meeting	20
Basics of the New Whole Farm Revenue Protection (WFRP) Policy	21
Winter Education Meetings for Fruit Growers ..	22
Are Ag Robots Ready: 27 Companies Profiled	25
Consumer Peach Purchasing Behavior and Preferences, Part 2: Results from a Sensory Evaluation	26
MAFVC Pre-Convention Farm Market Tour ...	29
2015 Outstanding Grower Award Nomination Form	30
Lunch and Learn for Young Specialty Crop Growers Invitation	31
9th Annual Apple Cider Contest Registration Form	32
2015 Mid-Atlantic Fruit and Vegetable Convention Educational Programs	33
Pennsylvania Apple Growers Reception Invitation	42
2015 Membership Dues Form	43

2015 Mid-Atlantic Convention Set for January 27 - 29th

The 2015 Mid-Atlantic Fruit and Vegetable Convention will be held January 27 to 29, 2015, at the Hershey Lodge and Convention Center in Hershey, Pennsylvania. Over 2,100 fruit, vegetable, and berry growers and other industry persons from throughout the mid-Atlantic region and beyond are expected to attend. This year's convention will again feature several pre-convention workshops, a farm market bus tour, and a trade show with over 160 exhibitors plus three full days of seven or more concurrent educational sessions. This year's keynote speaker will be Russell Redding, Dean of Delaware Valley College and former Pennsylvania Secretary of Agriculture.



Keynote Speaker
Russell Redding

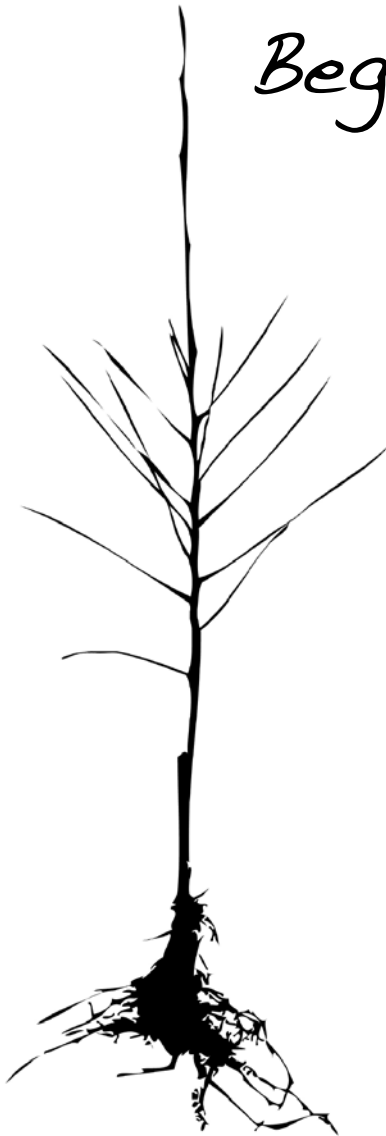
Dean of Agriculture and Environmental
Sciences at Delaware Valley College

The day before the main Convention opens, growers can choose between a bus tour of four south central Pennsylvania farm markets or five different workshops. The workshops include New Organic Vegetable Producer's School, Ag Literacy for Growers, Irrigation Water Toolbox, Farm Food Safety Training, and Basic Pennsylvania Pesticide Applicator Training. The farm market tour will feature visits to Strite's Orchard and CSA in Harrisburg, Ashcombe Farm and Greenhouses in Mechanicsburg, Hollabaugh Brothers Fruit Farm and Market in Biglerville and the Historic Round Barn in Biglerville. The bus tour will conclude with a visit to the Hauser Estate Winery in Biglerville.

The Mid-Atlantic Convention has been jointly sponsored by the State Horticultural Association of Pennsylvania, the Pennsylvania Vegetable Growers Association, the Maryland State Horticultural Society and the New Jersey State Horticultural Society for the past 37 years. Last year, the Virginia State Horticultural Society also began meeting at the Convention as well. The Pennsylvania State University, University of Maryland and Rutgers University Cooperative Extension plus the National Peach Council all assist in organizing the three days of educational sessions.

continued on page 4

Begin well.



End well.



Adams County Nursery recognizes the importance of starting with quality nursery stock.

We know it is your goal to produce high quality fruit.

We strive to produce quality trees for the commercial industry.

Let us help you get started.

Begin with us. Begin well.



Adams County Nursery, Inc. • Aspers, PA • (800) 377-3106 • (717) 677-4124 fax • email: acn@acnursery.com • www.acnursery.com

State Horticultural Association of Pennsylvania

EXECUTIVE BOARD

PRESIDENT

Tim Weiser, Weiser Orchards
830 Old Rt. 15,
York Springs, PA 17372 — (717) 528-8321

1st VICE PRESIDENT

Tad Kuntz, Masonic Village Orchard
1 Masonic Drive,
Elizabethtown, PA 17022 — (717) 361-4520

2nd VICE PRESIDENT

Chris Baugher, Adams County Nursery
P.O. Box 108,
Aspers, PA 17304 — (717) 677-8105

ELECTED COMMITTEE

Steven Johnston, Apple Castle LLC
277 State Route 18,
New Wilmington, PA 16142 — (724) 652-3221

Ben Keim, Keim Orchards
270 Poplar Road,
Boyertown, PA 19512 — (484) 332-5664

Brian Knouse, Knouse Fruitlands Inc.
P.O. Box 388
Arendtsville, PA 17303-0549 — (717) 677-8842

Carolyn McQuiston, Dawson's Orchards
122 Petersburg Road,
Enon Valley, PA 16120 — (724) 667-7719

Karen Paulus, Paulus Orchards
522 E. Mount Airy Road,
Dillsburg, PA 17019 — (717) 432-2544

Leonard Tate, Leonard L. Tate Orchards
4100 Carlisle Road,
Gardners, PA 17324 — (717) 486-3839

EXECUTIVE SECRETARY

Maureen Irvin
State Horticultural Association of PA
480 Mountain Road, Orrtanna, PA 17353
Phone (717) 677-4184 or Fax (717) 677-9636
E-mail address: shap@embarqmail.com
Website: shaponline.org

EDITOR

Dr. Rob Crassweller
102 Tyson Building,
Penn State University
University Park, PA 16802
Phone (814) 863-6163

EX-OFFICIOS

Carolyn McQuiston — Immediate Past President
SHAP

Department of Horticulture
Penn State University
Dr. Robert Crassweller

Penn State FREC
Dr. James Schupp
Dr. Greg Krawczyk
Dr. David Biddinger

PSU Cooperative Extension
Dr. Tara Baugher

PA Apple Marketing Program
Julie Bancroft

Department of Horticulture
Delaware Valley College
Dr. Christopher Tipping
Chairman of the Plant Science Department

COMMERCIAL REPRESENTATIVE

Mark Shannon
105 Beecherstown Road
Biglerville, PA 17307

ADVERTISING

CLASSIFIED ADS are available to members at the following rates:

\$12.00 - 3 lines plus,	\$20.00 - 6 lines plus,
60 cents for each additional word.	60 cents for each additional word.

For all advertising information, please contact Maureen Irvin at (717) 677-4184.

Pennsylvania Fruit News ISSN1090-1264

Published Monthly with the exception of a combined issue in December/January

STATE HORTICULTURAL ASSOCIATION OF PENNSYLVANIA

Periodical Postage Paid at Gettysburg, PA and additional entry offices

POSTMASTER: Send Address Change to State Horticultural Association of Pennsylvania,
480 Mountain Road, Orrtanna, PA 17353

PERIODICALS

POSTMASTER: If undeliverable, send notice of Form No. 3579 to S.H.A.P. 480 Mountain Road, ORRTANNA, PA 17353

The Convention has become one of the premier grower meetings in the Northeast. The Great American Hall and the Aztec Room at the Hershey Lodge and Convention Center will host the Trade Show. Specialized horticultural equipment, farm market merchandise, and packaging, will all be on display along with information on the latest seed varieties, fruit varieties, pesticides and other supplies and services for the commercial grower.

Many pesticide applicator update training credits will be available to Pennsylvania, Maryland, New Jersey and Virginia growers attending the sessions. The program covers nearly every aspect of fruit, vegetable, potato and berry production. Commercial growers should not pass up this terrific educational opportunity.

Seven or eight concurrent educational sessions will be offered on all three days of the Convention. Besides a combined session for the keynote address, the opening day will feature breakout sessions on Tree Fruit, Tomatoes, Organic Vegetables, GMOs, Food Trends, Successful CSAs, Pollinators and Pollination, Leafy Greens, Onions and Garlic, Snap Beans, Drip Irrigation, Apps for Agriculture and Labor/Farm Management.

On the second day, sessions on Direct Marketing 101, Agritainment, SWD in Small Fruit, Tree Fruit, Peaches, Sweet Corn, Greenhouse Ornamentals, Wine Grapes, Soil Health/Cover Crops and General Vegetables will be offered. Also offered will be the session "Técnicas de Producción de Frutas y Hortalizas" especially for Spanish speaking workers in the fruit and vegetable industries. It will feature various relevant production presentations in Spanish.

The Convention will close on the third day with sessions on: Peaches, Tree Fruit, Vine Crops, Pumpkins, High Tunnels, Potatoes, Post Harvest, New Equipment and Weed Control.

The ninth annual Mid-Atlantic Cider Contest will be conducted during the Convention to determine the best tasting cider produced in the region. On January 27, fruit and vegetable growers will gather for the annual Fruit and Vegetable Growers Banquet which will include awards and recognitions. On January 28 there will be an Ice Cream Social in the evening.

Registration is required for all persons attending the Convention trade show or educational sessions. Registration with any of the five sponsoring organizations allows one to attend any of the sessions although there are additional charges for some workshops and meals. For further information, go to www.mafvc.org or call 717-677-4184 or 717-694-3596.

Editorial Views

By Dr. Rob Crassweller

"What is the NC-140?"

The second week of November, I took a road trip down to Clemson, SC to attend the annual NC-140 meeting. While many of you are familiar with the NC-140 group, I suspect that not all of you are aware of its function or its breadth. This project seeks to enhance economically and environmentally sustainable practices in temperate fruit production by focusing on rootstocks. All Land Grant Universities are required to participate in multistate research projects. Penn State has been a member of the NC-140 project since its inception in the mid 1970's. Initially the project focused only on apple rootstock evaluations but has since expanded to include all temperate deciduous tree fruit such as peaches, cherries and pears. The project is the primary source of research-based information concerning fruit tree rootstocks for North America. The SHAP Research committee has been supporting the rootstock trials in Pennsylvania at either Biglerville or Rock Springs. NC-140 members have obtained rootstock material from around the world for evaluation in North America. The NC-140 has been able to shorten the time for rootstock evaluation from about 40 years to just 10 years. When NC-140 obtained the dwarfing apple rootstock B.9 from Russia, we unexpectedly learned that it imparted fire blight resistance to the scion and B.9 is now widely planted in some regions of North America. In 1990, NC-140 established the first multi-location apple training systems trial. As a result, we learned that the Vertical Axis system was much more profitable than the widely planted spread and head central leader system. Through grower meetings, newsletters and demonstrations, NC-140 facilitated rapid adoption of this new training system. During the past 15 years we have developed a number of modifications of Vertical Axis for various regions of the country. NC-140 has been a conduit for getting new rootstocks from breeding programs to commercial nurseries, so they can be rapidly introduced to the industry. NC-140 has been important for evaluating the Gisela cherry rootstock series, which has led to the development of high density cherry training systems. The project has been actively searching for a suitable peach rootstock that provides some size control. Importantly, the multistate trials have also exposed the weakness of some rootstocks because of the diversity of climate in which they are planted; from the cold climates in MN, ME to the fire blight prone areas such as OH and IL to the humid regions like GA, SC and NC. The website (www.nc140.org) is where you can see a listing of some of the multistate uniform rootstock trials, members of the

continued on page 5

project and their contact information and annual meeting minutes and reports.

The membership on this committee is composed of research and extension scientists from across the United States, southern Canada and northern Mexico. At our meeting in November we had forty people from 26 states, 3 Canadian provinces and 2 visiting scientists from Chile. Rich Marini and I represented Penn State and took our three graduate students to the meeting. While the drive took a little over 12 hours, it was a chance for the students to meet the majority of the North American scientists working in tree fruit production. I sometimes jokingly tell people if a natural disaster occurs at the annual meeting site, we would lose about 90% of the pomologists in the U.S.

A few years ago a subset of the members developed an eXtension website to provide information the committee had learned from all their work on apple rootstocks and apple varieties (<http://www.extension.org/apples>) and included information on general topics. The eXtension system is an attempt to put information on broad agriculture related topics into a single site and allow for sharing the information across the country by various institutions. The information at the Apples site was developed as the result of surveys of commercial growers on what they wanted to know about apple varieties.

Ag Alliance Issues Update - November 2014

Edited by Brad Hollabaugh

TRADE RESUMES WITH CHINA: FIRST STEP TOWARD BROADER ACCESS

On October 29, USDA's Animal and Plant Health Inspection Service (APHIS) announced an agreement had been reached with China and market access for Red and Golden Delicious apples from Washington would resume immediately. Regaining this important market and expanding access to all varieties from all states is a top priority for USApple and the entire industry.

China closed its market to Washington in 2012 due to concerns with a fungus that they claimed was not in China. Up until that time, China was emerging as a top market for Washington apples with growth potential for other states as well.

Chinese inspectors visited Washington in September coordinating with the Northwest Horticultural Council, Northwest Fruit Exporters and industry leaders and reached an agreement for increased control measures. Those same inspectors also visited growers in New York with an eye toward expanding access beyond Washington to other U.S. states and varieties.

USApple continues to follow this issue closely and is working with USDA and industry leaders to ensure the process continues to move forward. A bilateral meeting is planned for January in San Francisco where expanded access for all U.S. apples as well as China's request for access to the U.S. market will be front and center. USApple President & CEO Jim Bair will attend that meeting. (*USApple Bites*, 11/04/2014)

USDA TO PROVIDE \$4 MILLION FOR HONEY BEE HABITAT

USDA announced last week that more than \$4 million in technical and financial assistance will be provided to help farmers and ranchers in the Midwest improve the health of honey bees. The assistance will provide guidance and support to farmers and ranchers to implement conservation practices that will provide safe and diverse food sources for honey bees. The 2014 Farm Bill kept pollinators as a high priority, and these conservation efforts are one way USDA is working to help improve pollinator habitat.

Applications are due Friday, November 21. For more on technical and financial assistance available through conservation programs, visit www.nrcs.usda.gov/GetStarted or a local USDA service center. (*USApple Bites*, 11/04/2014)

International Paper offers Innovated Solutions to Fruit Growers & Packers

International Paper is the packaging leader in the Fruit Industry due to our diverse product line, excellent customer service, strategic locations and knowledgeable sales team.

We offer a complete packaging line for Apples, Peaches, Nectarines, Pears and more.

Our One-Stop-Shopping Line includes:

- Traymasters
- Bagmasters
- Bulk
- Cushions
- Fruitmaster trays
- Plastic tills / Panta trays
- Protective sleeves
- Gift boxes
- and the Showcase System™



**Progressive Packaging
for the Agri-Industry**



The International
Paper Innovation

International Paper
342 East York Street
Biglerville, Pennsylvania 17307
Phone 717.677.6111 800.222.8984
Fax 717.677.4394

TOOMEY, PERRY TURN UP HEAT ON THE EPA

With the Environmental Protection Agency extending the comment period on its “waters of the U.S.” rule, two members of Pennsylvania’s congressional delegation are urging constituents to “ditch the rule.”

Sen. Patrick Toomey and Rep. Scott Perry held a roundtable discussion with Pennsylvania Farm Bureau and other organizations to collect details on the harm that would come from the EPA’s misguided rule. The members of Congress also held a press conference at the Pennsylvania Farm Show where they asked Pennsylvanians to contact the EPA and their elected officials to reverse the agency’s attempt to expand its authority under the Clean Water Act.

“I like how Farm Bureau has put it,” Toomey said during the press conference. “It is time to ‘Ditch the Rule!’” The EPA and the Army Corps of Engineers have attempted to expand their authority under the Clean Water Act to regulate nearly every water body in the country, including ditches and small streams.

During the press conference, PFB President Carl T. Shaffer said the proposed expansion of federal authority would have a detrimental impact on agriculture. Not only would it cause confusion over when farmers would need a permit for certain normal farming activities, but it would also undermine the current efforts that state and local regulators have made in working with the farming community to improve water quality.

SBA TELLS THE EPA TO DITCH THE RULE

The federal Small Business Administration (SBA) has expressed some concerns over the proposed expansion of the “waters of the U.S.” rule, which would give the U.S. Army Corps of Engineers and Environmental Protection Agency greater oversight in water regulations.

In a letter to the EPA, the Small Business Administration warned that businesses would suffer under the added weight of the expanded “waters of the U.S.” rule. The SBA also took the EPA to task for failing to conduct a Small Business Advocacy Review Panel prior to announcing the proposed rule. There is still time to make your voice heard. The EPA recently extended the comment period for the rule to November 14. Join the thousands of Pennsylvanians who have already told the EPA to “Ditch the Rule” by submitting your comments to the agency. Use PFB’s legislative contact tool “Act Now” to send a comment to the EPA by visiting www.pfb.com and clicking on the “Act Now” button.

APPLE AND PEACH CROP INSURANCE DEADLINE COMING

Pennsylvania apple and peach growers have until **November 20, 2014** to apply for crop insurance on next year’s crop. Current policyholders who wish to

make changes to their existing policies also have until November 20 to do so.

Crop insurance provides coverage against production losses due to damage caused by natural perils and adverse weather conditions such as hail, wind, frost, and drought. Your amount of coverage will be determined from your actual yields and the protection level you select. Protection levels for apples and peaches range for 50 to 75-percent of your average yield. Indemnity payments are made when actual production falls below the covered or guaranteed protection level. The lost production is multiplied by the applicable price election to determine the indemnity amount.

The price elections for 2015 will be \$12.75 per bushel for fresh apples and \$4.65 per bushel for processing apples. Apple Varietal Groups A, B, and C have been added for the 2015 crop year with different price elections for each group. See your crop insurance agent for apple varieties and prices applicable to each varietal group. Peach price elections are \$20.00 per bushel for fresh peaches, and \$6.25 for processing peaches.

Crop insurance coverage for apples and peaches is available for all Pennsylvania counties. Buy-Up NAP protection is available for all non-insurable crops through FSA. The deadline for fruit, berries and other perennials is also November 20.

Fruit producers should consider making crop insurance and NAP an essential part of their overall risk management plan for each crop to help protect their operations from financial loss. For more information, producers are encouraged to visit the [RMA website](#), or contact their local crop insurance agent or FSA as soon as possible.

Source: Penn State

RMA DEVELOPS PREMIUM SUBSIDY FOR DIVERSIFIED FARMS

The federal Risk Management Agency has developed a premium subsidy to offer more affordable protection to diversified farms. The premium subsidy is part of the new Whole-Farm Revenue Protection insurance policy. The whole-farm policy, as required in the 2014 Farm Bill, will be offered through RMA managed crop insurance.

The policy will give fruit and vegetable farmers with diversified farms a more flexible and affordable risk management program. The program will be available to produce farmers who sell to wholesale markets, local markets or direct markets.

“Crop insurance options continue to adapt to meet the farm safety net needs of today’s farmers,” said RMA Administrator Brandon Willis. “Whole-Farm Revenue Protection insurance will expand options for specialty crop, organic and diversified crop producers, allowing them to insure all the crops at once instead of one

commodity at a time. That gives them the option of promoting crop diversity and helps support the production of a wider variety of healthy foods.”

The whole-farm premium subsidy will be available to farms with two or more commodities as long as diversification requirements are met. This gives diversified farms a higher premium subsidy than was available. Whole farm insurance allows producers to insure all crops and livestock on their farm under one policy. Farmers will be able to choose insurance coverage based on their risk management needs—from 50 to 85 percent.

NEW INVASIVE PEST FOUND IN BERKS COUNTY

State agriculture officials say a new invasive species that could threaten grape, fruit and hardwood trees has been discovered in two townships in Berks County. The Spotted Lanternfly, an inch-long red and white spotted insect, is native to Asia. In Korea, where it’s become an invasive pest, it has attacked 25 plant species that also grow in Pennsylvania.

“Since this is new to the country we are taking every precaution possible,” said Agriculture Secretary George Greig. “We need to do everything we can to stop the spread of the Spotted Lanternfly.

The invasive pest often attacked grapes, apples and stone fruits. Adults cluster in groups and lay eggs on flat surfaces. To help thwart the spread of the lanternfly, PDA has quarantined the movement of any material that can spread the pest in two Berks County townships.

NATURAL GAS TRANSPARENCY BILL APPROVED BY GOVERNOR

A bill that would bring greater transparency to natural gas leasing has been signed by Gov. Tom Corbett. House Bill 402, introduced by Rep. Tina Pickett, requires the owner of subsurface rights under a gas or oil lease to file with county recording offices a notice of termination or satisfaction of a lease within 30 days of the date the lease ends.

Pennsylvania Farm Bureau supported the bill over concerns that landowners have expressed over some aspects of the leasing process. The bill gives landowners greater confidence that lease obligations will be managed responsibly.

FARM SHOW MANAGER PASSES AWAY

Mike Waugh, executive director of the Pennsylvania Farm Show and former state senator, has died. Waugh, who served in the General Assembly for 21 years, represented York County before taking a position earlier this year with the Farm Show. He was also a longtime advocate for the state’s agriculture industry.

“Mike Waugh was the quintessential citizen-statesman, who divided his time between the work of the independent

businessman and the challenging world of public policy,” Gov. Tom Corbett said in a statement. “His values were the values of the Pennsylvania small businessman and farmer: thrift, hard work and civic spirit.”

Both SHAP and Pennsylvania Farm Bureau extend their sympathy to Waugh’s family and friends.

AGRICULTURE BUILDING BILL APPROVED

A bill that amends the state uniform construction code to clarify the types of buildings exempt from regulations has been approved by Gov. Tom Corbett. House Bill 1440, sponsored by Rep. Karen Boback, clarifies that buildings used for planting and growing of agriculture and horticulture products qualifies for the building code’s “agriculture building” exemption. Previously, there was confusion as to whether buildings such as high tunnels had to follow the state uniform construction code.

“House Bill 1440 is just a common sense extension of the exemption already existing in the state building code. The code currently exempts farm structures that store farm products. In fact, many municipal code enforcers are already interpreting the code’s ‘agricultural building’ exemption to include structures used in seeding and growing these products as well,” said PFB President Carl T. Shaffer.

“House Bill 1440 will ensure the exemption is uniformly applied statewide to greenhouses and other structures that farmers may use to lengthen their growing seasons in production of vegetables, fruits and other horticultural products.”

PA REACHES FARMLAND PRESERVATION MILESTONE

For more than 25 years, Pennsylvania farmers have seen the value of setting their land aside from development, and preserving farmland for the next generation.

This October, Pennsylvania farmers reached a milestone, preserving 500,000 acres of prime farmland from development. The amount of acreage preserved is equal to nearly the size of Allegheny County— home to the city of Pittsburgh. It also makes Pennsylvania the leading state in the nation for the size and scope of its farmland preservation program.

To mark the milestone, the Pennsylvania Department of Agriculture hosted a celebration at Flinchbaugh’s Orchard & Farm Market in York County. The acceptance of Flinchbaugh farms into the state’s farmland preservation program pushed the total state acreage over the 500,000 mark. Gov. Tom Corbett, who joined in the event at Flinchbaugh’s, said Pennsylvania farmers should be proud of their efforts to protect farmland for future generations.

Pennsylvania’s farmland preservation program began in 1988, with voters approving a \$100 million bond to put toward farmland preservation. Pennsylvania Farm Bureau played a key role in advocating for the creation of the

program and public education on the value of setting farmland aside from development.

PFB PRODUCED TV SHOW TO APPEAR ON RFD-TV

"Cultivating Farming Knowledge" is the theme of a new Pennsylvania Farm Bureau produced television program scheduled to be broadcast nationally on RFD-TV next week.

The program, Voices of Agriculture, focuses on farmer-supported agricultural education outreach efforts designed to inform students and the general public about the important role farmers play in feeding, clothing and providing energy for Americans. The show includes a school visit of PFB's Mobile Ag Ed Science Lab, a trip to the W.B. Saul School in Philadelphia, coverage of the National Ag in the Classroom Conference and stops at two farms hosting tours of grade school students. The show will be available on PFB's website—www.pfb.com—starting in mid-November.

Be a Model for the Future

Penn State Extension is looking for host sites for demonstrating best management practices and helping beginning farmers succeed. Be a 'Model for the Future'!

Through funding from the USDA Beginning Farmer and Rancher Project, Penn State Extension is looking to partner with four growers across Pennsylvania to establish demonstration plots to help new growers understand and implement best management practices and improve their farm success. This 'Models for the Future' project will provide on-farm demonstration sites illustrating best management practices (BMP) and learning centers for new farmer networks.

Are you a beginning farmer who has been farming for two to ten years and excited about implementing cutting edge production information on your farm? The 'Models for the Future' project is an opportunity to work with Penn State researchers and specialists to receive specialized technical recommendations for two to three crops, including tree fruit, berries, and/ or vegetables. Researchers will work with you to track quality, profits, and pest management from the practices implemented at your farm. Grant funds will defray the costs of demonstrating best management techniques, including planting stock, cover crop seed, and other supplies. The model plot at your farm will not only help your farm succeed, but provide important information to help the next generation of farmers in Pennsylvania succeed.

Are you interested in learning from your peers and researchers? Not only will 'Models of the Future' provide a living classroom, but also will form study circles to focus on production, marketing, and business topics. As a 'Models for the Future' host you will benefit from three study circles hosted at or near your farm. Study circles employ a discussion-based format allowing you and your fellow farmers to delve into topics of your choice, learning from an invited speaker and your peers. Study circles will begin with a 30 minute presentation by the speaker, followed by a meal and two hours of discussion. During the meal you and your fellow new farmers will have time to network and develop a community to support your new farm. Grant funds will defray the costs of the speakers and meals.

Apply by December 30th to be a 'Model of the Future.' contact Tianna DuPont (tdupont@psu.edu) or (610) 746-1970.

STRAWBERRY PLANTS

- Earliglow
- Jewel
- Honeoye
- Noreaster
- Albion
- Seascape

ALLSTAR



plus Other Leading Varieties

All plants grown on
Fumigated Sandy Loam Soil

Asparagus Crowns

All-Male Hybrids plus

Purple Asparagus

all as shown in our

FREE Illustrated Price List

Krohne

Plant Farms, Inc.



KROHNE PLANT FARMS

65295 CR 342 - Hartford, MI 49057
(269) 424-5423 - (269) 424-3126 (F)
info@krohneplantfarms.com

Young Growers Visit Spiral Path Farm and North Mountain Pastures

By Katie Epstein and Mark Clowney, Penn State Extension Young Grower Alliance



Opportunity abounds! This was the theme on the Young Grower Alliance tour November 18. Nearly 30 members of the YGA visited Spiral Path Farm and North Mountain Pastures in Perry County. Located in Pennsylvania Appalachia, both operations are surrounded by large hillsides and deep valleys. The operations are vastly different in terms of size and products produced, yet plenty of commonalities exist as well. For one, our tour guides at both farms, Will Brownback and Brooks Miller, respectively, earned degrees in engineering, worked in the corporate world and then decided to pursue their current agricultural endeavors. Both have well established CSAs and the engineering backgrounds were evident with the innovation at both locations. With the proximity to a majority of the U.S. population and access to plenty of water, operations on the east coast have a distinct advantage in meeting food demands.

We first met Terra Brownback, who explained that she and her husband Mike had moved to the area from Montgomery County, PA in 1978. She noted that in the beginning they didn't have much and growing conventional crops was their forte. In 1991 they made the decision to go organic and haven't looked back! She then introduced her son, Will Brownback. Will, the second generation at Spiral Path Farm along with his parents and about 40 employees farm 255 acres naturally and have been certified organic since 1994. Their CSA boasts 2200 members at peak season and over 1700 during the fall season. They have over 40 delivery locations in the Central Pennsylvania region they visit weekly. In addition, about 50% of their business is wholesale to Wegman's and another 5% is direct marketed to two farmers markets in Maryland. Innovation and determination are found in every structure

on the farm. They have converted an old Pennsylvania bank barn into a processing operation containing cold storage units; a small conveyor for packing CSA boxes; and a room to wash, clean and sort picked greens. Will provided countless examples of what has led to Spiral Path's success, which is focused on this vision: *being bold and growing a quality product*. He explains that if you have a quality product, which starts with soil health, market channels will open. Then it is your responsibility to deliver on your promises and cultivate your relationships.

Brooks and his wife Anna are first generation farmers who purchased their 84 acre farm 3 1/2 years ago after previously operating on leased farms. Half of the land is in pasture while the other half is in woodland. They run a 315 member meat CSA and attend 3 farmers markets. Sales include meat from their pasture-based livestock: pigs, broilers, turkeys, and sheep. They also operate a butcher shop on site. Brooks has a lot of projects on the farm including sugar maple trees with 120 taps, raising tilapia and growing barley fodder to improve their pigs' fiber digestion, ultimately increasing their feed intake and weight gain. A majority of their pasture is on steep hills, and to combat erosion they have created man-made swales in the pastures. All this is done with a skid loader and movable shelters. Their goal is to produce the highest quality meats and cheeses. To do this, Brooks tells us that you must take care of the soil. He is a big believer in building the soil back through careful grazing and planting the right cover crops to balance the fertility of the soil with the needs of his livestock.

The outing was complete with a potluck lunch with tour goers bringing a dish to pass and North Mountain Pastures

continued on page 10

and the YGA supplying grilled meats. Young growers are invited to attend two YGA educational activities during the Mid-Atlantic Fruit and Vegetable Convention at Hershey: a workshop on Ag Literacy—Communicating with Consumers and the Media (January 26) and a luncheon hosted by Helena (January 27). To learn more, please visit <http://extension.psu.edu/plants/tree-fruit/yga> or contact Alana Anderson, 717-334-6271. (Photos by Carla Snyder, Penn State Extension)



**Earn Better Yields
On Your Valuable Assets**
3 Years vs. 3 Years

Non-Irrigated Method Drip Irrigation Method

Specialists in Drip Irrigation since 1973!

**TRICKL-EEZ
COMPANY**
Irrigation Engineering
& Equipment

1-800-TRICKLE

St. Joseph, MI 800-874-2553 Fax 616-429-6669 e-mail: info@trickleez.com	Biglerville, PA 800-672-4700 Fax 717-337-1785 e-mail: info@trickleez.com
---	--

**CHECK US OUT ON THE WEB AT
WWW.TRICKL-EEZ.COM**

1/2 BUSHEL PEACH CRATES

FOUR D LUMBER
RR#2, Box 193-A • Thompsontown, PA 17094

Distributor:
BOYER NURSERY AND ORCHARDS
405 Boyer Nursery Road
Biglerville, PA 17307
717-677-8558
717-677-9567

Pollination Services are Mediated by Bee Functional Diversity and Landscape Context

By K. Martins, A. Gonzalez, M. Lechowicz

Wild bees, which exhibit multiple functional traits enabling pollination of apples (*Malus domestica* Borkh), can potentially compensate for recent declines in domesticated honey bees (*Apis mellifera* Linnaeus) that are conventionally employed to ensure apple fruit and seed set. Whether compensation is possible will depend on functional diversity in the wild bee community and on the distribution of habitat and resources within the landscape surrounding an orchard that affect wild bee abundance. We studied pollination services and bee functional diversity in 20 apple orchards in southern Quebec, Canada. We evaluated pollinator efficacy by studying: apple visitation rates, approach (front or side-working), body size, foraging type (pollen or nectar foraging), sociality, temporal and climatic activity patterns, and pollen carrying habit. Pollination services were measured as apple fruit set and seed set. A distance-based measure of functional diversity, calibrated with bee traits and weighted by species relative abundance in the wild bee community, was used to model pollination services. We correlated the landscape composition and configuration

of surrounding natural (forest) and semi-natural (meadow) habitats with bee diversity and pollination services. The incidence of fruit set and seed set in orchards increased with bee functional diversity. Complementarity between managed versus unmanaged bees in traits associated with foraging and resource use drove this relationship. Seed set was also negatively correlated with both the mean distance from surrounding meadows and the total area of surrounding orchards. Bee functional diversity was positively associated with surrounding meadow and forest area. These two land classes complement each other in their seasonal provision of foraging resources for bees. Our models can be used to prescribe management and conservation objectives for bee habitat management that promote pollination services. We identify useful wild bee pollinators and discuss their needs in terms of landscape composition and configuration.

(From *Agriculture, Ecosystems & Environment* 200:12)



SWEET NATURED APPLES FROM SWEET NATURED GROWERS

For four generations, our family has been dedicated to growing and packing and marketing fine Pennsylvania apples. We are proud that today we receive fruit from more than 40 families who are equally dedicated to producing some of the best apples in the world. Together we have built a reputation for quality and integrity that is unsurpassed in the country. Together we will have a sweet future.

Talk to us about marketing your quality fruit. Call Lee Showalter at (717) 729- 8004 (lee.showalter@ricefruit.com)

Penn State Extension

IPM Scouting and Resistance Management and Pesticide Applicator Safety

Concurrent Sessions in Spanish and English

Thursday, January 15th, 2014, 1:00 to 4:00 pm

Adams County Agricultural and Natural Resource Center, 670 Old Harrisburg Rd., Gettysburg, PA 17325



The primary mission of the Penn State Pesticide Education Program is to provide training for applicators and users about pest management alternatives, including the safe, proper, and legal use of pesticides. Responsible decision-making protects pesticide users, the public, plants, animals, and the environment.

The Pesticide Education team is partnering with the Penn State Horticulture Team to offer this short course series for a *New Generation of Horticulturists*. Concurrent sessions for

English and Spanish speaking orchard employees will be offered during the three-hour program and a Certificate of Participation will be awarded. The November 5th course will focus on integrated approaches to pest and pollinator management and pesticide applicator safety.

Pesticide applicators and also those who may become applicators in the future are encouraged to attend. There is no fee, but pre-registration is encouraged. For more information, please contact Montserrat Fonseca Estrada, muf29@psu.edu or 717-334-6271, ext. 315.

***3 core and 3 category credits available for pesticide applicators.**

Registration Form for Pesticide Safety Short Course

Registration encouraged but if you find you are available at the last minute, please attend!

Business _____ Number attending _____

Names _____

Phone _____ E-mail _____

Please return form to:

Montserrat Fonseca Estrada, Penn State Extension in Adams County
Adams County Agricultural and Natural Resource Center
670 Old Harrisburg Rd.
Gettysburg, PA 17325

PENNSSTATE



Cooperative Extension
College of Agricultural Sciences

Please call 717-334-6271, ext. 315 if you prefer to register by phone.

This publication is available in alternative media on request.

extension.psu.edu

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups.

The Pennsylvania State University encourages qualified persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Montserrat Fonseca Estrada in advance of your participation or visit.

Granulate Ambrosia Beetle in Tree Fruit

A farm in Southern NJ is experiencing an infestation of the granulate ambrosia beetle, *Xylosandrus crassiusculus* (Mot.). GAB was identified by expert Dr. James Lashomb at Rutgers. Adults are hunch-backed in appearance and are cinnamon or brownish in color. Females are 2.1-2.9mm in length and males are 1.5mm. Offspring are small white and legless c-shaped larvae.

Females bore into trunks or limbs and excavate a system of tunnels in the wood. The beetles feed on living trees and carry a mutualistic fungus with them. When GAB females attack a tree, they introduce the fungus, which also is used as a food source. Eggs, larvae, and pupae are found together in galleries. There are related ambrosia beetles that attack apple and are present in other states and it is possible we have multiple species.

Hosts: This species attacks ornamental trees including those found in natural landscapes and hedges such as dogwood, flowering cherry and locust. An earlier [Plant & Pest Advisory article by Richard Buckley](#) documents GAB in ornamentals. This year we have documented infestations in apple and peach at one NJ orchard.

Damage: This small bark beetle creates round 2mm entrance holes. Granulate ambrosia beetles usually mass attack trees and numerous exit holes can be observed. Damage usually occurs on the main stem close to the ground, but can be found through out the tree in heavy infestations. Trees of 3 inch DBH or less are more readily infested than larger trees, but large host can be attacked. Dave Schmitt and I observed exit holes on the trunk as well as scaffold limbs in apple.

Trees with high levels of resin, like peaches, can have gummosis at multiple sites. As the beetles feed they push out sawdust frass out of the gallery and which form "toothpicks". These toothpicks are a very good indication of GAB activity, however, they are fragile and breakoff in rain or wind. In NJ apple and peach, we have observed frass spikes in late July and again in early-mid November. They will likely be present in mid-Spring during the first flight period.

Heavy infestations usually lead to wilting, dieback and eventual tree death. Current management recommendations are Lorsban spray in the spring. Severely infested trees must be cut down and burned.

Monitoring: We believe GAB has 3-4 generations per year in the southern parts of the state. GAB is likely moving from the hedgerow and attacking stressed or otherwise injured trees. Current monitoring is a visual examination of the trunk and limbs for exit holes and toothpicks. If suspected populations are present the limb needs to be cut in order to identify galleries and the presence of the beetle. All life stages are present in a single gallery.

What to do: Currently, we are trying to identify if this is an isolated infestation or is present in multiple NJ orchards. If you are a NJ tree fruit grower and have observed "toothpicks" and numerous exit holes with tree decline, please talk with Dave Schmitt or myself. We intend to establish a monitoring program in the spring and hope to conduct management evaluations.

(From Rutgers Plant-Pest Advisory For images and original article go to: <http://plant-pest-advisory.rutgers.edu/granulate-ambrosia-beetle-in-tree-fruit/>)

Spray Deposition Profiles in Pome Fruit Trees: Effects of Sprayer Design, Training System and Tree Canopy Characteristics *By ADuga et al.*

Air assisted orchard sprayers are characterized by a strong airflow that carries the pesticide droplets to the target canopy and assist in moving the plant parts to allow deposition throughout the whole tree. It has been shown before that different designs of orchard sprayers result in different airflow profiles, but it is still unclear whether these differences strongly affect on-target spray distribution, and what is the role of tree architecture. Here we present an in-field analysis of the on-target deposition profiles from three distinct sprayer types in trees of four different apple and pear training systems.

The results obtained showed that there was a strong

relationship between the vertical leaf deposition profile and the outlet air flow pattern from the sprayers. Stronger air assistance (higher air speed) was directly correlated to a higher on-target deposition. It was also observed that directing nozzles towards the target is always an advantage irrespective of tree architecture. Tree characteristics such as total leaf cover, leaf wall porosity and tree volume strongly affected the total on-target deposition, further confirming previous claims that ground surface area alone is an incorrect measure for dose calculation in fruit trees.

(Crop Protection 67:200)

Introduction to Hard Cider Production



Tuesday, January 13, 2015, 8:00 AM - 3:30 PM (Snow Date – January 14)
Penn State Fruit Research & Extension Center, 290 University Drive, Biglerville, PA 17307

Local soils and climatic conditions favor the production of apples with the highest fruit quality, which has been a competitive advantage for the Mid-Atlantic fruit industry over the years. There is a growing interest among consumers for hard cider, and producers exploring alternative markets for apples will learn how to establish a hard cider orchard and also important considerations for cider production.

Guest speakers from Cornell and Virginia Tech will address traditional American and European apple varieties for cider fermentation, cider apple budget tools, cider market potential and long-term prospects for hard ciders in the U.S. Penn State Enology Extension Associate, Denise Gardner, will discuss fermentation, sanitation and stabilization. The program fee includes tasting of hard ciders of various flavors, a catered lunch and take-home resource materials.

Cost - \$120.00; Registration Deadline: Monday, December 15, 2014; Space Limited, so Sign up Early!

Register by Phone or Email:

Extension Registration Support

Phone: 717-334-6271

Email: ExtensionRegistration@ag.psu.edu

This publication is available in alternative media on request.

The Pennsylvania State University encourages qualified persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact 717-334-6271 in advance of your participation or visit. Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups. Nondiscrimination: <http://guru.psu.edu/policies/AD85.html>. Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

PENNSTATE



Cooperative Extension
College of Agricultural Sciences

Preharvest Factors that Affect the Development of Internal Browning in Apples cv. Cripp's Pink: Six-years Compiled Data

By C. Moggia et al.

Development of internal flesh browning (IB) of 'Cripp's Pink' (Pink Lady™) apples was studied over 6 years (2004-2011), on stored fruit coming from different orchards. The aim was to determine the effect of geographical location, climatic condition and fruit maturity on incidence of IB in the most important production regions of Chile. Geographical and climatic conditions were based on latitude, longitude, altitude, growing-degree-days (GDD), growing-degree-hours (GDH) and days after full bloom (DAFB). Maturity indexes included flesh firmness, starch index, soluble solids, background and red skin color. Fruits were stored at 0-1 °C for 5 months and IB incidence evaluated after removal plus 7-10 days at 18 °C. The disorder was classified as radial, diffuse or mixed IB. Data were analyzed through ANOVA, principal components analysis (PCA) and logistic regression analysis. Results showed that radial and diffuse IB can appear within the same orchard, and both symptoms may be combined

within a fruit (mixed IB), which has not been reported. The different ranges of diffuse, radial and mixed IB found after storage were highly influenced by preharvest conditions (geographic/climatic and maturity variables). Although the three types of IB were found to increase with extended harvests, which were associated with advanced maturity, relative strength of the models to predict IB were higher for radial and mixed IB (Max-rescaled $R^2 = 0.466$ and 0.404 , respectively), but less effective for diffuse IB (Max-rescaled $R^2 = 0.117$). Data from 6 years suggest that radial IB could best be explained by GDH and firmness at harvest; diffuse IB could be accounted for by GDH and background color at harvest, whereas for mixed IB the most meaningful variables would be DAFB and background color.

(From *Postharvest Biology & Tech.* 102:49)

Picking or Pruning ... this is a very versatile machine
 Increase picker's efficiency • Increase fruit quality up to 60%



MUNCKHOF
Pluk-O-Trak Machine

Call for Demo

Features include:

- Automatic hydraulic steering
- Leveling system: 2 or 4-way
- Two or four wheel drive
- Compressor for air pruning tools
- Pre-sort bin
- Hydraulic picking platforms for convenient access to all fruit

Use for:

- Harvesting
- Dormant & Summer Pruning
- Tying Tree Leaders
- Trellis Work

For specs, video & more info about The Pluk-O-Trak

OESCO INC.
 8 Ashfield Road on Route 116 • Conway, MA 01341
 800-634-5557 • 413-369-4335 • info@oescoinc.com • www.oescoinc.com

THINK LONG TERM
 THE EFFORT YOU MAKE TODAY WILL REWARD YOU IN THE FUTURE.

LOOKING FOR TREES? Make us your first call.
BECAUSE YOUR TIME IS VALUABLE – Let us manage the details.
LET OUR HIGHLY QUALIFIED STAFF WORK FOR YOU!

DON'T BE LEFT OUT!
800-424-2765
CALL TODAY TO SECURE YOUR FRUIT TREE NEEDS

BOOK FUTURE GROWER CONTRACTS NOW!
TIMING IS CRITICAL!



Jan Melvin Katie Schald Wally Heuser Dawn Melvin Wanda Heuser Gale

STS
 SUMMIT TREE SALES
 HUNTINGTON, MASSACHUSETTS

www.summittreesales.com



extension.psu.edu

Ag Literacy for Growers Communicating with Consumers and the Media

With Special Guest Speakers: **Lori Connelly** and **Dr. Richard Stup**

Ms. Connelly is the Executive Director of the PA Ag Resource Centers, a partnership between the Penn State College of Agricultural Sciences, the Pa Department of Agriculture and the Pennsylvania Legislature. Dr. Stup is a Sales Manager for AgChoice Farm Credit.

January 26, 2015, 1:00—4:00 PM
Hershey Lodge and Convention Center
325 University Drive, Hershey, PA 17033

Workshop Topics

- ⇒ **Ag Literacy—What is it?**
- ⇒ **Connecting with your Consumers**
- ⇒ **Framing your Message**
- ⇒ **Do's and Don'ts when the Press Calls**

Session incorporates interaction between participants to expand your network and opportunities to ask questions of your peers, industry experts and educators.

Registration is \$50 and includes light refreshments during a networking hour following the workshop.

For more details, please contact Tara A. Baugher at tab36@psu.edu or 717 334-6271.

Please register by **January 15, 2015**, by completing the workshop section of the Mid-Atlantic Fruit and Vegetable Convention registration form or the form with this flier.

Do you struggle with communicating your message to consumers and media? Are you confident that your employees can handle any question from a customer?

Worry no longer! Lori Connelly will prepare you to smoothly deliver your company's beliefs and easily conduct interviews before any audience. Dr. Richard Stup returns to discuss best practices for training employees to address concerns they hear from consumers.

Partnering Organizations:



Ag Literacy for Growers Registration Form - Registration Deadline: January 15, 2015

Names: _____ Business: _____

Address: _____

Phone: _____ Email: _____

Registration Fee: \$50 (includes light refreshments during networking hour)

Total Enclosed: \$50 x _____ = \$ _____

Please make check payable to: State Horticultural Association of Pennsylvania

Please return registration form and payment to: Maureen Irvin, Executive Secretary, State Horticultural Association of Pennsylvania, 480 Mountain Road, Orrtanna, PA 17353

This publication is available in alternative media on request.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups. Nondiscrimination: <http://guru.psu.edu/policies/AD85.html>

Georgia Blueberry Production Outgrows Peaches

By Allie Dean

Move over Peach State, there's a new top crop in Georgia. As of 2014, the state became the No. 1 producer of blueberries in the U.S. Georgia blueberry production spiked from only 5 million to 10 million pounds of blueberries in 1990 to 96 million in 2014, said Scott NeSmith, professor and blueberry breeder at the University of Georgia's Griffin Campus. In the past three years, the number of berries produced has jumped from 59 million pounds to 96 million.

NeSmith said the rise of the blueberry as Georgia's top crop has been seemingly quick, though in the same way a child grows up. "To me, as a parent, my children grew up really fast. To the children, they grew up really slow," he said. "It's the same way with this. It kind of happened fast, but it has been years in coming," NeSmith said the growth in blueberry production comes down to a partnership that has persisted since the 1990s. "One reason I got started with blueberries is that it was a new crop that had some new challenges and some new problems we had to work on," he said. "Our research partnered with the industry, with the industry helping to guide our research. The growers are the entrepreneurs. They have ingenuity but they don't have the resources and the time to say 'I need a new variety that does this,' so we work with them, they educate us on what the growing process is and we take all that input back to our laboratory and see if we can't create something that suits it."

His goal in breeding berries was simple. "I wanted us to have blueberry varieties with better quality and that were better suited for our growing conditions in Georgia," he said. NeSmith said it takes more than a decade to make a new blueberry variety. "So if we started today and said 'OK, let's make a new variety,' if everything went well it would be 10 to 12 years before we had that in our hands," he said. "So I think it's important that people understand that it's a long-term process." With such long-term research, NeSmith said blueberry breeders have to be selective about the kinds of blueberries they want. "One of our challenges is, if we're trying to decide what to breed now, it should be something we hope to need 10 years from now," he said. "We need to choose our objectives conservatively and based on sound principles. Like we need better fruit quality, or we need a plant that is better able to be harvested by machine, which is something we're working on now."

Eventually the research gets put to the test by Georgia farmers, NeSmith said. "When we get to a certain stage, we make a preliminary assessment of a potentially new variety," he said. "Then we move it up to a stage on our research farm. We look at it some more, and the next stage is to find some farmers that want to cooperate with

us, and we'll put new material on their farm for them to look at for a few years."

NeSmith said one of the most important effects of growing state blueberry production is it helps Georgia by filling a void in the more rural, southern parts of the state, where economies decline without cash crops. "It helps keep rural Georgia alive," he said.

But the research doesn't just benefit large-scale farmers, NeSmith said. "We target the commercial industries, but we still benefit homeowners and smaller farmers as well, as they are able to get our new varieties," he said. "Within the last few years we've also developed an ornamental blueberry, which is for small gardeners or people who want something that looks cool. We are working on a dwarf blueberry you can grow in a pot on your patio." NeSmith said blueberry research brings in international visitors to the UGA Griffin campus who want to see new varieties of blueberries being created. "It has worldwide importance — Georgia blueberries are sold all over the world," NeSmith said.

Ashna Momin, a junior biology major from Griffin, said she was surprised to hear that Georgia had become the nation's number one producer of blueberries because peaches have been such an integral part of the state's culture in the past. "Are we going to drop blueberries now instead of a peach on New Years?" Momin said.

As to whether Georgians should be worried the production of blueberries could take away Georgia's status as the Peach State, NeSmith said he isn't concerned. "We should always be proud of our peaches," he said. "Our peaches are fantastic. It's just that peaches reached their plateau a few years back and blueberries are still growing. Blueberries have put us on the map in a different way."

(From The Red and Black October 30, 2014)



**Special Session for Spanish-Speaking Horticulturists at the
Mid-Atlantic Fruit and Vegetable Convention**

Fruit and Vegetable Production Techniques

Moderated by **Montserrat Fonseca Estrada**, Penn State Extension

Wednesday, January 28, 2014



Morning

9:00 *Bayas y la Drosophila Ala Manchada (Brambles and SWD)
Kathy Demchak & Tianna Dupont, Penn State Extension

9:30 Manejo Postcosecha de Bayas y Fresas (Post-Harvest Handling of Berries)
Lee Stivers, Penn State Extension

10:00 *Mantenga la Seguridad de sus Cultivos- Use Buenas Prácticas Agrícolas y MIP (Keep Your Crop Safe – Use Good Agricultural Practices and IPM)
Maria Gorgo-Gourovitch, Penn State Extension

11:30 Poda de Huertos de Manzano de Alta Densidad: Principios y una Demostracion (Pruning High Density Apple Orchards: Principles and a Demonstration)
Mario Miranda Sazo, Cornell Extension

Afternoon

1:30 Nuevas Tecnologías para Trabajar Inteligentemente y No Tan Fuerte (New Technologies to Work Smarter Not Harder)
Mario Miranda Sazo, Cornell Extension

2:15 Uso de Presupuestos para Evaular Empresas Agrícolas (Using Budgets to Analyze Agricultural Enterprises)
Miguel Saviroff, Penn State Extension

3:10 **El Impacto de la Calidad del Agua en el Desempeño del Pesticida: El pequeño Factor que hace la Gran Diferencia (The Impact of Water Quality on Pesticide Performance: The Little Factor that Makes a **Big** Difference)
Hector Nunez-Contreras, Penn State Extension

4:05 Evaluación (Survey)

4:15 Sesión termine (Session adjourned)

*Category Credit; ** Core Credit (Credits offered pending approval from PA Dept of Agriculture). For more information contact/Para mas información, comuníquese con **Montserrat Fonseca Estrada** (muf29@psu.edu) o **717-334-6271 ext. 315**

Registration Form for Production Techniques

Name/Nombre _____ Farm/Empresario _____

Additional persons attending/Participantes adicionales _____

Address/Dirección _____ City/Ciudad _____

State/Estado _____ Zip _____ Email/c.e. _____

Phone/Teléfono (day/día) _____ (evening/noche) _____

Registration Fee/Remuneración: \$60 per person* (Includes admission to all educational sessions and trade show/ Incluye la entrada a todos los talleres y a la feria de muestras)

Total Enclosed/Incluydo: \$60 x _____ = \$ _____

Please return registration form and payment to:

Mande el formulario y la remuneración a:
Maureen Irvin, Executive Secretary
State Horticultural Association of Pennsylvania
480 Mountain Road
Orrtanna, PA 17353

Please make checks payable to/Haga cheques a nombre de:
State Horticultural Association of Pennsylvania

*Participant must be a member of one of the sponsoring organizations, or an employee of a member.
Registrations after 1/17 are \$80.

This publication is available in alternative media on request.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups.

The Pennsylvania State University encourages qualified persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Montserrat Fonseca Estrada in advance of your participation or visit.

Additional Berks County Townships, Communities Quarantined Because of Spotted Lanternfly

New Foreign Insect Now in Hereford, Rockland, Washington Townships and Communities.

More Berks County townships and communities are quarantined in the fight to stop the spread of the Spotted Lanternfly, an invasive insect new to the United States that was found in the area earlier this fall.

The additional quarantine covers Hereford, Rockland and Washington townships and the boroughs of Bally and Bechtelsville. District and Pike townships are already quarantined.

“Since Pennsylvania is the first known home to Spotted Lanternfly in North America, we’re taking every possible precaution to stop its spread and eliminate this threat to agriculture,” said Agriculture Secretary George Greig. “Help us by looking for adult insects and their egg clusters on your trees, cars, outside furniture – any flat surface that the eggs may be attached to. We know we’re asking a lot, but we know Pennsylvanians will assist us and help save our fruit trees, grapes and forests.”

The Spotted Lanternfly, an inch-long black, red and white spotted pest, is native to China, India, Japan and Vietnam. It’s an invasive species in Korea, where it has attacked 25 plant species which also grow in Pennsylvania.

The general quarantine restricts movement of any material or object that can spread the pest. This includes firewood or wood products, brush or yard waste, remodeling or construction materials and waste, packing material like boxes, grapevines for decorative purposes or as nursery stock, and any outdoor household articles like lawnmowers, grills, tarps and any other equipment, trucks or vehicles not stored indoors.

Businesses in the general quarantine area need to obtain a Certificate of Limited Permit from the department in order to move articles. Criminal and civil penalties of up to \$20,000 and prison time can be imposed for violations by businesses or individuals.

Spotted Lanternfly, *Lycorma delicatula*, attacks grapes, apples, pines and stone fruits. It often attaches to the bark of Tree of Heaven – sometimes referred to as Paradise Tree – an invasive species similar to Sumac that can be found around parking lots or along tree lines. Adults often cluster in groups and lay egg masses containing 30-50 eggs that adhere to flat surfaces including tree bark. Freshly laid egg masses have a grey waxy mudlike coating, while hatched eggs appear as brownish seedlike deposits in four to seven columns about an inch long. Trees attacked by the Spotted Lanternfly will show a grey or black trail of sap down the trunk.

The department is investigating the quarantined and surrounding areas to assess the spread and impact of the pest. Additional townships may be added to the quarantine.

Greig encourages all Pennsylvanians to watch for the Spotted Lanternfly and offered the following suggestions:

- If you see eggs: Scrape them off the tree or smooth surface, double bag them and throw them in the garbage, or place the eggs in alcohol or hand sanitizer to kill them.
- If you collect a specimen: Turn the adult specimen or egg mass in to the department’s Entomology Lab for verification. First, place the sample in alcohol or hand sanitizer in a leak proof container.
- If you take a photo: Submit photo of adults or egg masses to badbug@pa.gov.
- If you report a site: Call the Bad Bug hotline at 1-866-253-7189 with details of the siting and your contact information.

Greig added that while Pennsylvanians can submit suspect eggs to the department headquarters in Harrisburg or to its six regional office locations, county Penn State Extension offices are often a closer, quicker option.

Learn more about the Spotted Lanternfly through photos and video, a webinar discussing the pest, the full quarantine order, a sample submission form and updates in the fight at www.agriculture.state.pa.us by searching “lanternfly.”



PRESIDENT'S DAY FRUIT GROWERS EDUCATIONAL MEETING

Monday, February 16, 2015

Biglerville High School Auditorium, Biglerville, PA

Morning

(7:45—Registration; Moderator—Bruce Hollabaugh)

- 8:00 **ACFGA Business and Elections**
Bruce Hollabaugh, President
- 8:10 **PDA and Apple Marketing Board Welcome**
Lela Reichart, PDA Director, Bureau of Markets and Economic Development, Julie Bancroft, PAMP Executive Director
- 8:30 **Basics of Nematode Management**
Dr. Kari Peter, PSU Plant Pathologist
1 Category Credit
- 9:00 **How to Manage Secondary, Non-Fruit Feeding Pests if Biocontrol Fails**
Dr. David Biddinger, PSU Entomologist
1 Category Credit
- 9:45 Show and Tell
- 10:00 **Getting the Upper Hand on Troublesome Weeds**
Dr. Rob Crassweller, PSU Pomologist
1 Category Credit
- 10:30 **Tree Fruit Borers 101**
Dr. Greg Krawczyk, PSU Entomologist
1 Category Credit
- 11:00 **Does Water Quality Affect the Efficacy of NAA Stop-Drop Sprays?**
Dr. Jim Schupp, PSU Pomologist and FREC Director
1 Category Credit
- 11:30 Group A—Lunch/Group B—Auditorium
- 12:15 Group B—Lunch/Group A—Auditorium
Disease Management Following a Wet Year
Dr. Kari Peter, PSU Plant Pathologist
1 Category Credit

Afternoon

- 1:00 **The Right Nutrients for Quality Fruit**
Dr. Rob Crassweller, PSU Pomologist
1 Category Credit
- 1:30 **On the Horizon—The WPS Regulation Revision**
Jim Harvey, PSU Worker Protection Standard Specialist
1 Core Credit
- 2:00 **The Latest from the Penn State FREC**
Dr. Jim Schupp, PSU Pomologist and Center Director
- 2:15 **Improving Crop Protectant Spray Coverage**
PSU Pest-Ed Spray Application Team
1 Core Credit
- 3:00 **Education Program Feedback**

REGISTRATION AND LUNCH—OPPORTUNITIES TO VIEW EDUCATIONAL AND COMMERCIAL EXHIBITS

Concurrent Session in Spanish – School Library

Coordinated by Montserrat Fonseca Estrada, PSU Extension

- 12:15 **Plant Propagation for Organic Vegetable Production**
Tianna Dupont, PSU Extension
- 1:15 **Money Matter\$\$— Practical Record-keeping for an Effective Accounting System**
Miguel Antonio Savioff, PSU Extension
- 2:15 **Scouting for Orchard Pests to Target Spray Applications**
Hector Nunez, PSU Pesticide Education Program

This publication is available in alternative media upon request.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups. Penn State encourages persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, contact Penn State Extension, at 334-6271, in advance of your participation or visit.

PENNSTATE



Cooperative Extension
College of Agricultural Sciences

President's Day Fruit Growers Educational Meeting Registration Form

\$15.00 per person for general session (covers lunch and educational materials). No charge for concurrent session (unless staying for lunch)

Names: _____ Number Attending: _____ x\$16 = _____

Address: _____

Please send payment, payable to ACFG, by February 2, to: Brenda Cressler, ACFG, 33 Musselman Avenue, Biglerville, PA 17307 **SIMILAR PROGRAMS OFFERED AROUND THE STATE – Dates and Contact Information listed on the Page in this Issue of PA Fruit News, titled “Winter Educational Meetings for Fruit Growers”**

Basics of the New Whole Farm Revenue Protection (WFRP) Policy

WFRP is a new crop insurance policy called for in the 2014 Farm Bill and developed by the USDA, Risk Management Agency. This newly available crop insurance product is not intended for a single specific crop, but for all the crops, livestock, and products that are grown, raised, or produced on your farms. This product may be of special interest to diversified and organic farms that do not have single crop policies or organic price elections available.

Fruit farmers interested in the policy should check it out before the November 20 enrollment deadline for individual MPC1 policies because they may want to consider modifying their MPC1 individual policy to better fit with the WFRP policy. In any case, producers should start talking with their crop insurance agent if they are interested in the policy to be prepared for the March 16th sales closing date for WFRP.

WFRP is available in all states and counties of the eastern U.S.

Some of the most notable benefits this new insurance option offers include:

- An \$8.5 million liability limit (an increase from \$6.5 million under AGR and \$1 million under AGR-Lite);
- 85% of historical revenue coverage level when at least three crops are grown (an increase over the previous 80% cap);
- a premium subsidy of up to 80% when at least two crops are grown (a significant increase over the highest subsidy rate of 59% provided under AGR-Lite);
- a premium discount for increased diversification stair stepped up to 7 crops;
- coverage for both crops and livestock (capped at 35% of expected revenue up to \$1 million);
- inclusion of some incidental processing expenses necessary to make the commodity ready for market, such as washing, trimming, and packaging;
- replant coverage for a crop losses early enough for replanting; and
- the continued option to insure individual crops under separate crop policies (cannot be CAT level coverage).

The paperwork responsibilities for the farmer will include:

- The WFRP Application
- Whole Farm History Report (last 5 tax years)
- IRS Tax Form 1040 Schedule F
- Farm Operation Report (Intended, Revised, Final)

- Allowable Expenses Worksheet
- Allowable Revenue Worksheet
- Beginning and end of year Inventory Reports (if applicable)
- Accounts Receivable and Payable Reports for beginning and end of year (if applicable)
- Market Animal and Nursery Inventory/Accounting Worksheet (if applicable)
- Verifiable complete marketing record for each commodity

The USDA, RMA fact sheet on this new risk management tool is available at: <http://www.rma.usda.gov/policies/2015/wfrpfactsheet.pdf>

RMA provides this web site so we can search for certified crop insurance sales agents:

<http://www.rma.usda.gov/tools/agent.html>



The advertisement features a background image of a field with rows of crops. Overlaid on the top left is a 'Warning!' dialog box with a yellow triangle icon and the text 'Is your fruit protected?' with 'YES' and 'NO' buttons. In the top right corner, there is a stylized 'BFM' logo. The text 'use Crop Insurance' is written in a large, bold, white font across the middle. Below this, a quote reads: 'In today's economy, can you really afford to lose your crop? Crop Insurance provides the safety net you need to keep you in business when the economy threatens to put you out of business!'. At the bottom, it says 'Call: Morrissey Insurance' in a large font, followed by the address '890 N. Reading Road | Ephrata, PA 17522 | (800) 422-8335 | www.insuringyourfuture.com', the phrase 'For ALL your insurance needs. Sales teams in Troy, New Cumberland, and Lebanon, PA.', and 'Agricultural service excellence since 1971.'



Winter Educational Meetings for Fruit Growers

Tuesday, Feb. 10—Central Susquehanna
Mifflinburg, PA; Contact John Esslinger, cje2@psu.edu
570-784-6660

Wednesday, Feb. 11—Southeast Region
Leesport, PA; Contact Tanner Delvalle, tcd125@psu.edu
570-622-4225; Kathy Salisbury, kvs14@psu.edu
215-345-3283

Thursday, Feb. 12—Northeast Region
Avoca, PA; Contact John Esslinger, cje2@psu.edu
570-784-6660

Monday, Feb. 16—Adams County
Biglerville, PA; Contact Tara Baugher, tab36@psu.edu
717-334-6271

Tuesday, Feb. 17—Lancaster/York Co.
Lancaster, PA; Contact Tim Elkner, tee2@psu.edu
717-394-6851

Wednesday, Feb. 18—Franklin County
Waynesboro, PA; Contact Tara Baugher, tab36@psu.edu
717-334-6271

Tuesday, Mar. 3—Appalachian Fruit Growers
Bedford, PA; Contact Tom Ford, tgf2@psu.edu
814-472-7986

Wednesday, Mar. 4— Erie County
North East, PA; Contact Andy Muza, ajm4@psu.edu
814-825-0900

Thursday, Mar. 5— Western PA
Wexford, PA; Contact Bob Pollock, rcp3@psu.edu
724-465-3880

2015 Program Highlights

- The Right Nutrients for Quality Fruit
- On the Horizon—the WPS Regulation Revision
- Disease Management Following a Wet Year
- Basics of Nematode Management
- Secondary Pests as a Result of BMSB
- Tree Fruit Borers 101
- Getting the Upper Hand on Troublesome Weeds
- Improving Crop Protectant Spray Coverage

This publication is available in alternative media on request.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups.

PENNSTATE



Cooperative Extension
College of Agricultural Sciences

We're a Little Worried.

Every day more orders are coming in and selections for desired trees are getting reduced. So, please keep this in mind as you make your decisions. The more quickly you choose, the more likely we'll be able to provide. With availabilities already tight for this, *and next year, and even beyond...* help cut down on worries. Place a call and get us to work.

Local Representative:

Gary Kauffman, Biglerville, PA (717) 677-6931

*Patent information available upon request.



Jonastar®
(Lentz Cultivar)

Exciting new Jonagold sport. Finishes with a nice subtle stripe over a bright red background. Wonderful taste, quality and size. Usually a one pick variety.



Schlect Spur Red Delicious
Colors early with full blush by mid-August. Colors and matures sooner with whiter flesh than any other red sport. Brix level allows for earliest picking opportunities.



September Wonder® Fuji
(Fiero Cultivar)

The earliest true Fuji out on the market. Good size with reddish blush skin color. Creamy white flesh with typical Fuji flavor.



Honeycrisp™

A wonderfully balanced flavor combined with a crisp, juicy texture makes a very enjoyable eating experience. Stores very well. An excellent pollinator.



PO Box 116 Wenatchee, WA 98807.0116
509.662.7164 FAX 509.662.4519 800.232.2636
tree@c-onursery.com www.c-onursery.com

BEST ANGLE TREE STAKES

Supporting
Over Million Trees
in the United States.

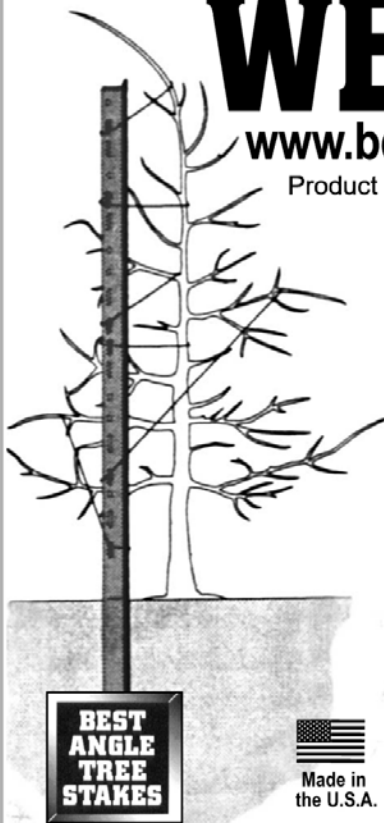
CHECK-OUT OUR....

Attention!

WEB SITE

www.bestangletreestakes.com

Product Information and Customer Comments.



RAIL Steel STAKES

8ft. & 10ft. lengths
other sizes on request.

- Angle leg dimensions from 3/4" to 2".
- Available unpainted or painted with an electro-powder coating, oven-baked enamel finish.
- **No Splinters.**
- **No Breakage** with heavy load of fruit or wind.
- **No Warping.**
- No Wood Preservatives to leach in to soil.
- Recycled from **HIGH CARBON RAILROAD RAILS**, with tremendous tensile strength: at least 80,000 psi.
- Shipping and Handling Less Expensive.
- Faster and Easier Installation, even in rocky soil.
- Unaffected by climate changes.
- Cuts Tree-Training costs, holes are spaced at intervals to make tying fast and easy.

Designed
by a Fruit Grower
with over 40 years
of experience in
dwarf tree systems.

Buy the Best Stake...Call

(570) 546-5571

or E-MAIL:
sales@bestangletreestakes.com

**BEST
ANGLE
TREE
STAKES**

Best Angle Tree Stakes

205 Lycoming Mall Road, Pennsdale, PA 17756 • FAX (570) 546-8509

Are Ag Robots Ready? 27 Companies Profiled

By Frank Tobe

Agriculture is one of our most important industries. It provides food, feed and fuel necessary for our survival. With the global population expected to reach 9 billion by 2050, agricultural production must double to meet the demand. And because of limited arable land, productivity must increase 25% to help meet that goal.

Consider these factoids:

- Major US farming conglomerates are buying foreign land and beginning to farm there citing lower overall cost.
- China is buying land in Africa and sending skilled workers to supervise those new farms.
- Farmers and ranchers the world over are transitioning to precision agricultural methods, i.e., subdividing their acreage into many sub-plots, in some cases, right down to the individual plant/tree/animal thereby enabling increased productivity and lower overall costs.
- Unmanned aerial vehicles are being used to map, observe, sense and spray.
- Unmanned (or at least autonomous) ground vehicles are providing more precise movements and thereby enabling precision practices.
- The US Bureau of Labor Statistics reports that 2012 median pay for farm workers was \$9.09.

- The US Bureau of Labor Statistics reports that there were 749,400 ag workers in 2012, down 3% (25,000) from 2011.
- 74% - approximate number of crop workers in the US who were born in Mexico or Central America of which more than half are likely to be undocumented (according to Fortune Magazine).
- Cropdusters have the 3rd highest fatality rate among professions in the US. 90% of crop spraying in Japan is done using small unmanned helicopters.
- ResearchMoz, in a 1/29/2014 report, projects agricultural robot market size to grow from \$817 million in 2013 to \$16.3 billion by 2020.

Thus the agricultural industry is in transition. And that transition differs country by country, state by state, region by region as well as by type of farming practiced: from primitive to conventional to precision to experimental. A little bit of everything is going on everywhere but the general trend worldwide is toward precision agriculture supplemented by advanced technologies including robotics.

(To see the complete article and a listing of the robotic machines that have been developed or are being developed go to:

<http://www.therobotreport.com/news/ag-in-transition-from-precision-ag-to-full-autonomy>)

Financing, Crop Insurance and Much More!



 **AgChoice
Farm Credit**
Knowing you makes the difference.™

York Branch
1-800-822-1218
WWW.AGCHOICE.COM

Farm Credit is an equal opportunity provider and employer 

Loan Officer Katie Epstein and Crop Insurance Specialist Ashley Hicks

Consumer Peach Purchasing Behavior and Preferences, Part 2: Results from a Sensory Evaluation

Rachel Primrose, John Hayes, Kathy Kelley, Robert Crassweller, Rich Marini

Consumer perception is a major factor in determining success in the marketplace. To better understand consumer behavior, sensory tests are often an effective means to learn more about what factors may drive product acceptance. In addition, these tests can better estimate consumer acceptability of a product, which ultimately affects a consumer's decision in making a repeat purchase of that product (Karen, 2002).

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.

Four peach samples were evaluated for liking/disliking for the following attributes: color, texture, sweetness, sourness, flavor, and overall. 'PF Lucky' received significantly higher mean liking scores than the other three samples in terms of color, texture, sweetness, flavor, and overall liking attributes.

Products

The sample peaches were sourced from the Adams County Nursery and were held in the cooler of the Fruit Research and Extension Center after picking. 'Redhaven' (picked 7/31/13), 'Raritan Rose' (picked 8/5/13), 'PF Lucky' (picked 7/31/13), and 'Blazingstar' (picked 8/5/13) varieties were included in the evaluation. The peaches were brought to the Pennsylvania State University Sensory Evaluation Center in the Department of Food Science the day before testing and were held at room temperature until they were prepped for testing.

Methodology

Peaches were peeled, pitted and diced into identical sized pieces. Samples were served at room temperature, in clear plastic cups, which were labeled with 3-digit blinding codes and then served in a randomized order. A nine point hedonic scale was used, with 1=dislike extremely, 9=like extremely to evaluate product based on a series of attributes: color, texture, overall, sweetness, tartness, and flavor liking. After participants evaluated their samples, they were asked to answer a variety of demographic questions. Evaluations took place in individual testing booths, under normal white lighting, using Compusense ® five software. Participants were given \$5 for participating. After evaluations, Brix and titratable acidity was measured.

Statistical Analysis

Mean liking scores for each sample were analyzed using Tukey's HSD in Compusense ® five software.

Results

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' 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.' 'Raritan Rose' (5.18) and 'Blazingstar' (5.02) fell near 'neither like nor dislike.'

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)
Color ¹	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.

²Means 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

Peach Type	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
I do not eat fresh peaches	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 July through September	0	0.0
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
\$150,000-199,999	7	7.0
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
Eat all of the peaches before they go bad		
Agree	56	56.0
Disagree	44	44.0
Problem storing peaches		
Agree	46	46.0
Disagree	54	54.0

Additional internet survey data, which describes the attitudes and behaviors of more frequent peach consumers, will be presented in a future Fruit News.

Reference

Karen, L. B. (2002). Evaluating Sensory Quality of Fresh-cut Fruits and Vegetables
Fresh-Cut Fruits and Vegetables: CRC Press.

MID-ATLANTIC fruit & vegetable convention



Pre-Convention Farm Market Tour

January 26, 2015



Strite's Orchard and CSA

Harrisburg www.stritesorchard.com

This 100-year-old family farm produces fruit, vegetables, berries and ornamentals which they market through their farm market and CSA. The market also includes a bakery.

Ashcombe Farm and Greenhouses

Mechanicsburg www.ashcombe.com

This market began as a roadside vegetable stand in 1961 but has become a year-around market featuring unique gifts, designer arrangements, homegrown plants, fresh baked goods, a café, gourmet food items and a women's boutique area.

Hollabaugh Brothers Fruit Farm and Market

Biglerville www.hollabaughbros.com

This fourth generation family business markets some of their 500 acres of fruit and vegetables at their newly constructed full-service market that features produce, gourmet food items, baked goods, gifts, local meats and local ice cream plus an educational "Bee Room".

The Round Barn

Biglerville www.roundbarngettysburg.com

This market is operated by Knouse Fruitlands Inc., another fourth generation fruit and vegetable farm business. Besides fresh fruit and vegetables, the seasonal market offers prepared food items, baked goods, crafts, gifts and much more in a unique and historic round barn built in 1914 that also hosts private events on the second floor.

Hauser Estate Winery

Biglerville www.hauserestate.com

This recently established alternative agritourism venture produces local grapes to make wines in their underground winery production facility. On top of the production facility is a 360° glass-enclosed tasting room that overlooks miles of farmland, orchards and forests near the historic Gettysburg battlefield. A tour of the production facility will be followed by an optional wine tasting opportunity.

Cost is \$60 per person and includes lunch, bus, and winery tour.



For information visit www.mafvc.org or call 717-677-4184 or 717-694-3596

**ACCEPTING NOMINATIONS FOR THE
2014 OUTSTANDING GROWER AWARD
State Horticultural
Association of Pennsylvania**

It is proposed that this award be given to a person making a significant contribution to the fruit industry of the state during the current year.

Although this award is primarily intended to be given to a fruit grower or those involved in fruit production, it may be given to a person in allied industry such as processing, a state employee, a county agent, University personnel, or to any other person making a special contribution to the fruit industry.

A committee of five members will constitute the AWARD COMMITTEE. The Chairman of this committee is the immediate Past President of the Association. He has no vote in the selection of the recipient of the award.

The committee annually reviews the list of nominees and determines the person who most deserves the award for this year. Although it is to be given to a person only once for a specific purpose, it may be awarded to the same individual more than once for additional outstanding contributions. Any member of the State Horticultural Association of Pennsylvania may make a nomination on the form below.

NOMINATION FORM

I (we) recommend _____
to receive the 2014 Outstanding Grower Award of the State Horticultural Association of Pennsylvania.

Contribution to the Industry

Short Sketch of Life Activity

Person making the nomination:

MAIL / EMAIL NOMINATIONS TO:

Carolyn McQuiston, Chairman
122 Petersburg Road
Enon Valley, PA 16120
carolyn@dawsonorchards.com

Other members of the Committee are:
Daniel Boyer Brad Hollabaugh
Dwight Mickey David Wenk
Reed Soergel

**Deadline to submit nominations:
by January 5, 2015**

**Past Recipients Of The Award
PENNSYLVANIA'S
"OUTSTANDING ORCHARDIST AWARD"**

- 1967 — M.E. Knouse
- 1968 — Dr. Carl S. Bittner
- 1969 — Francis Reiter
- 1970 — Dean Asquith
- 1971 — William Lott
- 1972 — John Mengel
- 1973 — Dr. Fred Lewis
- 1974 — Ruth Trostel
- 1975 — Earl Strite
- 1976 — George A. Goodling
- 1977 — John A. Hauser
- 1978 — John B. Peters
- 1979 — Dr. Dwight M. Edwards
- 1980 — Robert H. Hodge
- 1981 — Ralph W. Tyson
- 1982 — Raymond F. Reiter
- 1983 — Dr. C. Marshall Ritter
- 1984 — Paul S. Harner
- 1985 — Paul G. Pitzer
- 1986 — Dr. Loren D. Tukey
- 1987 — Ralph Sandoe
Special Award - Rodger W. Smith
- 1988 — Elwood Way
- 1989 — John L Rice
- 1990 — Joseph G. Strite

May 18, 1990 - PERMANENT NAME SELECTED

The name to be used, regardless of
who receives the award, is
"OUTSTANDING GROWER AWARD"

- 1991 — Dr. George M. Greene, II
Special Award - Arthur E. Rice, Jr.
- 1992 — Robert L. Kime
- 1993 — Dean L. Carey
- 1994 — D. Gerald Edwards
- 1995 — Patti L. Levis and Janet Knouse
- 1996 — Dr. James Oyler
- 1997 — Freemont S. Kuntz
- 1998 — Larry A. Hull
- 1999 — Stanley E. Brown
- 2000 — James C. Lerew
- 2001 — Henry Frecon
- 2002 — David Benner
- 2003 — Jack Mickey
- 2004 — Lee Showalter
- 2005 — John Lott
- 2006 — William Kleiner
- 2007 — Phil Baugher
- 2008 — Kenneth Guise, Jr.
- 2009 — Daniel Boyer
- 2010 — Brad Hollabaugh
- 2011 — David Wenk
- 2012 — Dwight Mickey
- 2013 — Reed Soergel

Penn State Extension

Lunch and Learn for Young Specialty Crop Growers!



Featured Speaker

Julie Bancroft

*Entrepreneurship and
Innovation in Marketing
Specialty Crops*



Special Thanks to
Helena Chemical Co.
for sponsoring lunch!

You are invited to the
Young Grower Alliance Luncheon
to be held at the
Mid-Atlantic Fruit and Vegetable Convention

Tuesday, January 27, 2105
12:00—1:30 pm
Hershey Lodge and Convention Center
Hershey, PA

Please RSVP no later than January 20, 2015 to:

Alana Anderson
aaa5773@AG.PSU.EDU
717-334-6271



PENNSSTATE



Cooperative Extension
College of Agricultural Sciences

This publication is available in alternative media upon request.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, individuals with disabilities, and other protected groups.

9th Annual Mid-Atlantic Fresh Apple Cider Contest to be held during the Mid-Atlantic Fruit and Vegetable Convention in Hershey, PA

Who is Eligible: Any **commercial** fruit or vegetable grower whose operation is in Pennsylvania, Delaware, Maryland, New Jersey, West Virginia, or Virginia.

What To Submit:

1. One gallon of your best cider in **plain unmarked** containers. If your container has a preprinted label it will not be placed in the competition.
2. Turn in the blend details on the entry form below or on a separate sheet with your name and mailing address. (We will not reveal the percentages but just want to know what cultivars are in the mix.) The purpose of the email is to be able to notify you about next year's contest.
3. Sorry only **one** submission per farm. Deadline for entries will be **Tuesday, January 27th at 10:00 AM.**

How the Cider Will Be Judged:

1. A number will be assigned to each entry, marked on the jug and recorded in a judging book.
2. A panel of judges will sample and evaluate the cider.
3. Ciders will then be placed on a table in the lobby of the Convention Center so that other people may taste them.
4. The top three rated ciders will receive certificates. In addition the top rated cider will be awarded one free registration to the 2016 Mid-Atlantic Fruit and Vegetable Convention.
5. Judging will begin Tuesday at 10:30 AM and the ciders will be available through Tuesday evening for sampling.
6. The winners will be announced Tuesday evening at the banquet.

Mid-Atlantic Cider Contest 2015 Judging Criteria

Below are the criteria that will be evaluated for each cider entry. Note that the characteristics have variable points assigned to them. Please be sure to follow the correct number of points for each characteristic. Numbers in parenthesis are the maximum score for a particular characteristic. **The higher the number, the better the characteristic.**

Characteristic	Cider entry number									
	1	2	3	4	5	6	7	8	9	10
Appearance (4) <i>Looks appealing</i>										
Color (4) <i>Attractive</i>										
Aroma (4) <i>Fragrant and pleasing</i>										
Sweetness (6) <i>Not too high or low</i>										
Tartness (6) <i>Not too tart or bland</i>										
Sugar/acid ratio (8) <i>Good blend</i>										
Flavor (6) <i>Typically apple</i>										
Body (2) <i>Not too thick or thin</i>										
Bitterness (2) <i>Not bitter</i>										
Overall impression (8) <i>A good cider</i>										
Total score (50)										

Mid-Atlantic Cider Contest 2015 Entry Form

Name/Farm: _____

Address: _____

Phone: _____ Email: _____

Mixture of Varieties: _____ Entry Number: _____

2015 Mid-Atlantic Fruit & Vegetable Convention

Educational Programs

Please note, speakers, topics, times and rooms in this program are subject to change. Check for updates on the website at www.mafvc.org. The printed program at the Convention will take precedence over any pre-convention programs.

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*

*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

Monday, January 26, 2015

New Organic Vegetable Producers School

9:00 a.m. to 3:00 p.m.

Fee - \$100 includes lunch, course reader and organic production guide.

This full day intensive will delve into plant propagation, insect, weed and disease management. Join us if you are a new organic vegetable producer or interested in transitioning your operation.

9:00 **Introduction and Organic Standards**

9:30 **Tips for Transplant Propagation for New Organic Growers**

10:00 **Plant Disease Basics**

10:30 **Managing Plant Disease Hands-on Activity**

12:00 **Lunch**

12:30 **Six Steps toward Ecological Weed Management in Organic Vegetable Production**

1:30 **Organic Pest Management Hands-on Activity**

3:00 **Adjourn**

Speakers - Tianna DuPont, Penn State Extension; John Good, Quiet Creek Farm, and Beth Gugino, Penn State Univ.

***Note – Soil Management is an important basis for organic management. Rather than cover it only in a cursory manner we will point you in the direction of longer courses designed to delve into the details.

Irrigation Water Toolbox Workshop

9:00 a.m. to 4:00 p.m.

Fee - \$50 includes lunch

Have you tested your irrigation water chemistry? Learn how the quality of your irrigation water affects aspects of production including nutrient availability, pesticide behavior, and pathogen control. Bring your own water sample to test and develop a plan for your own water testing toolbox. Water sample collection instructions will be sent to registrants.

Presenters will include Penn State Extension commercial

horticulture and water resources educators, and other academic researchers and water treatment industry representatives.

The following topics will be covered:

-Evaluating irrigation water source options.

-Water chemistry: pH, alkalinity and conductivity

-Acid adjustment calculations and injection systems

-Hands-on water testing activity; equipment calibration

-Water testing and water test report interpretation

-Fertilizer-water interactions

-Water quality effects on pesticides

-Physical and chemical water treatment methods

Basics of Good Agricultural Practices Workshop

9:00 a.m. to 5:00 p.m.

Fee \$50 includes lunch – limited registration

This will be a pilot presentation of the FDA-Approved Farm Food Safety Course presented by the Produce Safety Alliance that will prepare growers to meet the food safety standards under the new Food Safety Modernization Act (FSMA).

Pennsylvania Pesticide Applicator License Basic Training

9:00 a.m. to 4:00 p.m.

Fee - \$50 includes lunch and Private Applicator Packet (course and study materials)

If you intend to purchase and/or apply restricted use pesticides for the purpose of producing an agricultural commodity on land which is owned or rented by you, then you need a Pennsylvania Department of Agriculture Pesticide (PDA) License. To become a certified private applicator, testing is required. This full day Monday session will cover the basics and prepare you for the pesticide applicator's exam (which will take place Tuesday morning from 8:30 AM – 11:30 AM).

Ag Literacy for Growers – Communicating with Consumers and the Media

1:00 p.m. to 4:00 p.m.

Fee - \$50 includes light refreshments

Do you struggle with communicating your message to consumers and media? Are you confident that your employees can handle any question from a customer? Lori Connelly (Penn State Univ.) will prepare you to smoothly deliver your company's beliefs and easily conduct interviews before any audience. Dr. Richard Stup (AgChoice Farm Credit) returns to discuss best practices for training employees to address concerns they hear from consumers.

continued on page 34

Workshop Topics

- Ag Literacy—What is it?
- Connecting with your Consumers
- Framing your Message
- Do's and Don'ts when the Press Calls

Session incorporates interaction between participants to expand your network and opportunities to ask questions of your peers, industry experts and educators.

Farm Market Tour

8:15 a.m. to 5:30 p.m.

Fee - \$60 includes lunch and optional wine tasting.

This all-day bus tour will leave the Hershey Lodge at 8:15 a.m. and return at 5:30 p.m. It will include visits to Strite's Orchard & CSA in Harrisburg (farm market, bakery, and CSA) Ashcombe Farm and Greenhouses (market, gift shop, bakery, café and garden center) in Mechanicsburg, Hollabaugh Brothers Farm in Biglerville (farm market, bakery, gifts), The Historic Round Barn in Biglerville (farm market, gifts, bakery, and event venue) and the Hauser Estate Winery (production facility, tasting/sales area).

Tuesday Morning, January 27, 2015

Food Trends - Trinidad Room

- 9:00 Boomers to Millennials, Who is Buying What and How to Tell Them What You Have**
Brian Moyer, Penn State Extension
- 9:45 Interpreting National Food Trend for Profit**
Heather Mikulas, Penn State Univ.
- 10:30 Adjourn to Keynote Session**

Tomatoes - Empire Room

- 9:00 Getting Paid for Your Produce - An Introduction to PACA**
Gregory Brown, McCarron & Diess
- 9:45 *Tomato Disease Update – Late Blight**
Dr. Beth Gugino, Penn State Univ.
- 10:30 Adjourn to Keynote Session**

GMO's - Magnolia Room

- 9:00 Status and Content of GMO Labelling Legislation**
Ross Pifer, Penn State
Dickinson Agricultural Law Center
- 9:45 Experience and Potential of Biotechnology for Fruit and Vegetables**
Dr. Li Li, Cornell Univ.
- 10:30 Adjourn to Keynote Session**

Leafy Greens - Crystal Room

- 9:00 Four Season Lettuce Production**
Dr. Lewis Jett, West Virginia Univ.
- 9:45 * IPM Strategies for High Tunnel Leafy Greens**
Judson Reid, Cornell Coop. Extension
- 10:30 Adjourn to Keynote Session**

Organic Vegetables - Wild Rose Room

- 9:00 Using a Buckwheat Cover Crop for Maximum Weed Suppression after Early Vegetables**
Thomas Bjorkman, Cornell Univ.
- 9:45 Spiral Path Farm - How We Grow Transplants**
Michael & Terra Brownback, Spiral Path Farm
- 10:30 Adjourn to Keynote Session**

Snap Beans - Cocoa 1

- 9:00 Snap Bean Health – to be announced**
- 9:45 How to Grow That Great Yield – grower panel**
- 10:30 Adjourn to Keynote Session**

Apps for Ag - Cocoa Ballroom

- 9:00 **Apps for Pest Management**
Andrew Frankenfield, Penn State Extension
- 9:45 Is There a Drone (Unmanned Aircraft System) In Your Farms Future?**
Craig Williams, Penn State Extension
- 10:30 Adjourn to Keynote Session**

Tree Fruit - Nigerian Room

- 9:00 Invocation**
Ed Weaver
- 9:05 President's Address**
Tim Weiser
- 9:15 *The MaluSim Apple Carbohydrate Model and its Use For Improving Consistency of Chemical Thinning**
Dr. Alan Lakso, Cornell Univ. and
Dr. Terence Robinson, Cornell Univ.
- 10:00 *Improving Branching of Apple Trees**
Win Cowgill, Rutgers Cooperative Extension
- 10:30 Adjourn to Keynote Session**

Keynote - Nigerian and Trinidad Rooms

- 10:45 Legislative Update**
- 11:00 Keynote Presentation: Human Capital: Now, Tomorrow and the Next Generation**
Russell Redding, Delaware Valley College
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

* before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.

** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.

Tuesday Afternoon, January 27, 2015

CSA's - Trinidad Room

- 1:30 Cooperative Models - Partnering With Other Farms**
Heidi Secord, Josie Porter Farm
- 2:10 Cooperative Models - Partnering With Other Farms**
John Good, Quiet Creek Farm
- 3:00 Adding a CSA To Your Retail Farm Market**
Kurt Alstede, Alstede Farm
- 4:00 Adjourn**

Tomatoes - Empire Room

- 1:30 *Bacterial Spot of Tomato: Biology and Management**
Dr. Beth Gugino, Penn State Univ.
- 2:00 Tomato Fertility**
Steve Bogash, Penn State Extension
- 2:45 **How Water Quality Effects Pesticide Efficacy**
Kerry Richards, Penn State Extension
- 3:30 Tomato Grafting and Foliar Diseases in High Tunnels**
Judson Reid, Cornell Coop. Extension
- 4:00 Adjourn**

Pollinators and Pollination - Magnolia Room

- 1:30 CPR - Pollinatore Biology, Nutrition and Health**
Dr. Harland Patch, Penn State Univ.
- 2:00 *Pollinating High Bush Blueberry: Who Does It, and How Can Growers Improve It**
Dr. Rufus Isaacs, Michigan State Univ.
- 2:45 **IPM To Minimize Impacts on Pollinators in Tree Fruit**
Dr. David Biddinger, Penn State Univ.
- 3:30 *Cucurbit Pollinators, Pollination and IPM**
Dr. Shelby Fleischer, Penn State Univ.
- 4:00 Government Conservation Programs for Pollinators**
James Gillis, USDA/NRCS;
Mace Vaughan, Xerces Society
- 4:30 Discussion**
Dr. Harland Patch, Penn State Univ.;
Dr. Rufus Isaacs, Michigan State Univ.;
Dr. David Biddinger, Penn State Univ.;
Dr. Shelby Fleischer, Penn State Univ.;
James Gillis, USDA/NRCS;
Mace Vaughan, Xerces Society
- 5:00 Adjourn**

Drip Irrigation - Crystal Room

- 1:30 Pond Management**
Bryan Swistock, Penn State Extension
- 2:00 Ag Management Strategies for Drip Irrigation**
John Melora, Lee Rain Inc
- 2:45 Soil Moisture and Fertilizer Management**
George Hochmuth, Univ. of Florida
- 3:30 Drip Irrigation Uniformity**
William Wolfram, Toro Ag
- 4:00 Keeping Fertigation Units Running Properly**
Thomas Ford, Penn State Extension
- 4:30 Adjourn**

Organic Vegetables - Wild Rose Room

- 1:30 Nutrient Management in Organic Cropping System**
John Spargo, Penn State Univ.
- 2:00 New Insights on Weed Management Decision Making from Mental Models Research**
Dr. Doug Doohan,
Ohio Ag Research & Development Center
- 2:45 Strategies For Weed Suppression and Improving Soil Fertility During Transition to Organic Vegetable Production**
Dr. Doug Doohan,
Ohio Ag Research & Development Center
- 3:30 *Evaluation of Organic Insecticides for Vegetable Production**
Dr. Galen Dively, Univ. of Maryland
- 4:00 A Comparison of Organic Cucurbity Production Techniques - Plastic vs. Strip Tillage Field Preparation With and Without Row Cover**
Jason Lilley and Dr. Elsa Sanchez,
Penn State Univ.
- 4:30 Adjourn**

Onions and Garlic - Cocoa 1

- 1:30 Onion Varieties**
Dr. Michael Orzolek, Penn State Univ. Emeritus
- 2:00 Garlic Fertility - Optimal Rates and Timing**
Crystal Stewart, Cornell Univ.
- 2:45 *Bacterial Disease Management of Onions**
Dr. Beth Gugino, Penn State Univ.
- 3:30 Sweet, Green and Overwintering Onion Varieties for Plasticulture & Bare Ground**
Gordon Johnson, Univ. of Delaware
- 4:00 Growing Great Leeks**
Eli Cook, Spring Valley Farm
- 4:30 Adjourn**

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*
*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

Labor/Farm Management - Cocoa Ballroom

- 1:30 Employee Management**
Keith Dickinson, Farm Credit East
- 2:30 Income Tax Planning**
Keith Dickinson, Farm Credit East
- 3:30 The New Farm Bill, Horticultural Crop Insurance and Noninsured Crop Disaster Assistance Program (NAP)**
John Berry, Penn State Extension,
Gene Gantz, RMA, and Rebecca Csutoras,
Farm Service Agency
- 4:30 Adjourn**

Tree Fruit - Nigerian Room

- 1:30 Automating Pruning—Pie in the Sky or Rubber meets the Road**
Dr. Peter Hirst, Purdue Univ.
- 2:00 Pruning by the Numbers**
Dr. Jim Schupp, Penn State Extension
- 2:30 Pruning Running Late—Time to Automate**
Dr. Jayson Harper, Dr. Leland Glenna,
Dr. Anouk Patel-Campillo, Penn State Univ.
- 3:00 From Loppers to Lasers—Labor-Saving Engineering Advances for Grapes and Apples**
Dr. Johnny Park, Purdue Univ. and
Tony Koselka, Vision Robotics
- 3:45 Computer-Assisted Pruning Demonstration**
Mid-Atlantic Growers and Speakers
- 4:15 Adjourn**
- 4:30 SHAP Business Meeting**

Wednesday Morning, January 28, 2015

Marketing 101 - Trinidad Room

- 9:00 Effective Market Signage**
Caleb Torrice, Tabora Farm and Orchard
- 9:40 Market Curb Appeal**
Jennifer Brodsky, Kitchen Table Consultants
- 10:30 Market Décor - Themes, Displays and Windows**
Brit Carlson, Ruie and Grace
- 11:10 Market Layout**
Jennifer Brodsky, Kitchen Table Consultants
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*

*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

Sweet Corn - Empire Room

- 9:00 Nutrient Management with Tissue Testing**
Steve Bogash, Penn State Extension
- 9:30 Sweet Corn Varieties**
Blake Myers, Seigers Seed Co.
- 10:00 *Managing Weeds in No-Till Sweet Corn**
Steve Groff, Cedar Meadow Farm
- 10:45 *Managing Insects with Today's Options**
Dr. Galen Dively, Univ. of Maryland
- 11:30 *Understanding and Managing Sweet Corn Leaf Diseases**
Dr. Alyssa Collins, Penn State Univ.
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Soil Health/Cover Crops - Magnolia Room

- 9:00 Nitrogen Release and Disease Suppressive Activity of Four Compost Amendments on Three Vegetable Farms**
Lori Hoagland, Purdue Univ.
- 9:30 Living Mulch as an Alternative to Herbicides in Plasticulture Vegetables**
Judson Reid, Cornell Coop. Extension
- 10:00 Solvita, Haney, Food Web, Cornell Soil Health Test. What are My Soil Health Test Options and What Will They Tell Me**
Charlie White, Penn State Extension
- 10:45 The Role of Organic Matter in Soil Fertility Management**
John Spargo, Penn State Univ.
- 11:30 Lessons Learned: Incorporating Cover Crops and Reduced Tillage on Our Farm**
Arthur King, Harvest Valley Farms
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Small Fruit - Focus on Spotted Wing Drosophila - Crystal Room

- 9:00 *Spotted Wing Drosophila in the Mid Atlantic: An Update**
Dr. David Biddinger, Penn State Univ.
- 9:30 **Experiences With a Fixed Sprayer System in High Tunnel Raspberries**
Dale Riggs, D. Riggs Consulting
- 10:00 *Progress Towards Managing Spotted Wing Drosophila on Blueberries**
Cesar Rodriguez-Soana, Rutgers Coop. Extension
- 10:45 *Chemical and Non-Chemical Approaches to Managing Spotted Wing Drosophila in Raspberry**
Dr. Rufus Isaacs, Michigan State Univ.
- 11:30 Using Spotted Wing Drosophila Exclusion Netting in Blueberries**
Dale Riggs, D. Riggs Consulting
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Greenhouse Ornamentals - Wild Rose Room

- 9:00 Getting Started Selling Perennials; These You Need to Have**
Sinclair Adam, Penn State Extension
- 9:30 **Pesticide Delivery Systems for Greenhouse Applications**
Thomas Ford, Penn State Extension
- 10:00 *Replacing Neonicotinoids in the Greenhouse**
Dr. Raymond Cloyd, Kansas State Univ.
- 10:45 You're Killing Your Own Plants: Greenhouse Sanitation Makes Better Plants**
Dr. Gary Moorman, Penn State Univ.
- 11:30 Top Ten Ways to Save on Greenhouse Heating Costs**
Neil Mattson, Cornell Univ.
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Wine Grapes - Cocoa 1

- 9:00 Vineyard Canopy Management Practices for Premium Wine Grapes**
Joyce Rigby, Vineyard Consultant
- 9:45 Understanding, Assessing and Managing Freeze Injury in Grapevines**
Dr. Michela Centinari, Penn State Univ.
- 10:15 Finding Balance – Vine Size, Capacity, Vigor and Vine Balance**
Dr. Alan Lakso, Cornell Univ.
- 11:00 Replanting: Challenges and Opportunities**
Dr. Gary Pavlis, Rutgers Univ.
- 11:30 **Core Presentation**
Dr. Kerry Richards, Penn State Univ.
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Spanish - Cocoa Ballroom

- 9:00 *Bayas y la Drosophila Ala Manchada**
(Brambles and SWD)
Kathy Demchak & Tianna Dupont, Penn State
- 9:30 Manejo Postcosecha de Bayas y Fresas**
(Post-Harvest Handling of Berries)
Lee Stivers, Penn State Extension
- 10:00 *Mantenga la Seguridad de sus Cultivos - Use Buenas Prácticas Agrícolas y MIP**
(Keep Your Crop Safe – Use Good Agricultural Practices and IPM)
Maria Gorgo-Gourovitch, Penn State Extension
- 11:30 Poda de Huertos de Manzano de Alta Densidad: Principios y una Demonstracion**
(Pruning High Density Apple Orchards: Principles and a Demonstration)
Mario Miranda Sazo, Cornell Extension
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Tree Fruit - Nigerian Room

- 9:00 *How to Take Advantage of NEWA Weather and Pest Models**
Dr. Julie Carroll, Cornell Univ.
- 9:30 Grower Usage of NEWA Systems** (panel)
Dr. Rob Crassweller, Penn State Univ (moderator), Sam Boyer; Ben Lerew; Bruce Hollabaugh, Hollabaugh Brothers Fruit Farm
- 10:00 Grower Funded Research an Industry Partnership**
Phil Baugher, SHAP Research Committee
- 10:10 The Importance of Grower Funded Research for the Prosperity of the Industry**
Dr. Gary Thompson, Penn State Univ.
- 10:45 Apple Tree Water Use in Northeastern Climates and an Online Water Balance System**
Dr. Alan Lakso, Cornell Univ., Danilo Dragoni, Nevada Dept. of Env. Protection and Dr. Terence Robinson, Cornell Univ.
- 11:15 Grower Innovations (A Panel)**
Bob Pollock, Penn State Extension (moderator) Evan or Nathan Milburn, Milburn Orchards, **use of falcons for rodent control;** Tad Kuntz, Masonic Village, **use of blue birds for insect control;** Brian Knouse, **use of GPS;** Greg Heller, **using the Munkoff Pluk-O-Trak;** John Saunders, **irrigation systems**
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Wednesday Afternoon, January 28, 2015

Peaches - Trinidad Room

- 1:30 Peach and Plum Cultivars for the New Age The Ernie Christ Lecture**
Dr. Bill Shane, Michigan State Univ.
- 2:15 Applied Science in Post-Harvest Evaluation and Product Development**
Eric Gaarde, Gaarde FoodSource
- 2:45 Peach Rootstock Trials**
Dr. Jim Schupp, Penn State Univ.
- 3:15 Peach and Nectarine Varieties I Love and Those I Should Never Have Planted** (panel)
Jerry Frecon (moderator), Robert Fralinger, Fralinger Farms; Bennett Saunders or Henry Chiles, Crown Orchard Co; Gene Kingsbury, Kingsbury Orchards; Brian Smith, Solebury Orchard
- 4:00 Adjourn**

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*

*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

Sweet Corn - Empire Room

- 1:30 No-Till Sweet Corn Through the Season**
Andrew Frankenfield, Penn State Extension
- 2:00 Organic Sweet Corn Without the Worms: It Can Be Done!**
James Crawford, Pearl Wetherall and Jennifer Glenister, New Morning Farm
- 2:45 Management of Wildlife Issues**
Matt Rice, USDA-APHIS Wildlife Services
- 3:30 Wholesaling Sweet Corn: Do's and Don'ts**
Rick Stauffer and William Saussaman, Seminole Produce
- 4:00 **Health Effect of Pesticides: Get the Facts**
Emelie Swackhamer, Penn State Extension
- 4:30 Adjourn**

Agritainment - Magnolia Room

- 1:30 How To Grow Your Agritainment Business**
John Hill, Hill Ridge Farm
- 3:00 To be Announced**
- 3:45 To be Announced**
- 4:30 Adjourn**

General Vegetables - Crystal Room

- 1:30 *Risk Management of 2 4-D and Dicamba Tolerant Soybeans**
Dr. Doug Doohan, Ohio Ag Research & Development Center
- 2:00 2014 Broccoli Variety Trial Results**
Dr. Elsa Sanchez, Dr. William Lamont Jr, Robert Pollock, Lee Stivers, Steve Bogash and Thomas Butzler, Penn State
- 2:45 How We Grow Celery and Greenhouse Greens at Twin Springs Farm**
Thomas Childs, Twin Springs Fruit Farm
- 3:30 Soil Nutrient Problems and Resolutions**
George Hochmuth, Univ. of Florida
- 4:00 Field Greens and Salad Mix Production at the Dickinson College Farm**
Matthew Steinman, Dickinson College Farm
- 4:30 Adjourn**

Greenhouse Ornamentals - Wild Rose Room

- 1:30 *How To Best Manage Fungus Gnats**
Dr. Raymond Cloyd, Kansas State Univ.
- 2:00 Best of Penn State Flower Trials**
Sinclair Adam, Penn State Extension
- 2:45 Efficient Feeding: Going Beyond 20-20-20**
Krystal Snyder, JR Peters Co
- 3:30 Minimizing Phytotoxicity in the Greenhouse**
Thomas Ford, Penn State Extension
- 4:00 Stayin' Alive: Strategies To Improve Plant Retail Shelf Life**
Neil Mattson, Cornell Univ.
- 4:30 Adjourn**

Wine Grapes - Cocoa 1

- 1:30 Recommended and Promising Varieties for the Mid-Atlantic**
Dr. Joseph Fiola, Univ. of Maryland
- 2:15 *Spotted Lanternfly and its Pest Potential to the Grape Industry**
Dr. Mike Saunders Penn State Univ.
- 2: 45 *Grape Disease Research Review and Update**
Bryan Hed, Penn State Univ.
- 3:30 Wine Marketing & Promotion Strategies for the Mid-Atlantic Region**
Abigail Miller, Penn State Univ.
- 4:30 Adjourn**

Spanish - Cocoa Ballroom

- 1:30 Nuevas Tecnologías para Trabajar Inteligentemente y No Tan Fuerte**
(New Technologies to Work Smarter Not Harder)
Mario Miranda Sazo, Cornell Extension
- 2:15 Uso de Presupuestos para Evaular Empresas Agrícolas**
(Using Budgets to Analyze Agricultural Enterprises)
Miguel Saviroff, Penn State Extension
- 3:10 **El Impacto de la Calidad del Agua en el Desempeño del Pesticida: El pequeño Factor que hace la Gran Diferencia**
(The Impact of Water Quality on Pesticide Performance: The Little Factor that Makes a Big Difference)
Hector Nunez-Contreras, Penn State Extension
- 4:05 Evaluación** (Survey)
- 4:15 Sesión termine** (Adjourn)

Tree Fruit - Nigerian Room

- 1:30 *Revisiting Control Options for Internal Worms**
Dr. Greg Krawczyk, Penn State Univ.
- 2:00 U.S. Apple Assoc & PA Apple Marketing Board Updates**
Jim Bair, US Apple Association, Julie Bancroft, PA Apple Marketing Program
- 2:30 Apple Flower Development - Busting the Myths**
Dr. Peter Hirst, Purdue Univ.
- 3:00 *Wooly Apple Aphid Outbreaks in Relation to Stink Bug Management**
Dr. Chris Bergh, Virginia Tech Univ.
- 3:45 Progress on a Low Cost Harvest Assist Device**
Dr. Paul Heinemann, Penn State Univ.
- 4:15 Adjourn**

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*
*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

Thursday Morning, January 29, 2015

Risk Management in On-Farm Direct Marketing -

Trinidad Room

- 9:00 Direct Marketing - Is It Right For You, Doing a Self Assessment**
Stephen Komar, Rutgers Cooperative Extension
- 9:30 Considerations for Selecting and Training Employees to Improve Safety for Direct Marketing**
Michelle Infante-Casella,
Rutgers Co-op Extension
- 10:00 Assessing Farm Safety When Inviting the Public on Your Property**
William Bamka, Rutgers Cooperative Extension
- 10:45 Right To Farm, Deed of Easement and Other Regulations that Impact Direct Marketing**
Brian Schilling, Rutgers Cooperative Extension
- 11:30 Food Aspects for Direct Marketing**
Meredith Melendez,
Rutgers Cooperative Extension
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Vine Crops - Empire Room

- 9:00 *Monitoring for Squash Vine Borer, An Unseen Plant Killer**
George Hamilton,
UNHCE - Hillsborough County
- 9:30 *Bacterial Diseases in Vine Crops, Is There Any Hope**
Dr. Beth Gugino, Penn State Univ.
- 10:00 *Watermelon Insect Management Update**
Joanne Whalen, Univ. of Delaware
- 10:45 Lighting the Way With 'Sunlight', 'Moonlight' and Other New Cucurbit Varieties on the Horizon**
Dr. Brent Loy, Univ. of New Hampshire
- 11:30 Using a Plasticulture System to Grow Cucurbits**
Dr. Michael Orzolek, Penn State Univ. Emeritus
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*

*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

High Tunnels - Magnolia Room

- 9:00 Winter Production in High Tunnels**
Judson Reid, Cornell Coop. Extension
- 9:30 Mechanization of Ventilation in High Tunnels**
Steve Bogash, Penn State Extension
- 10:00 Cover Crops for High Tunnels**
Dr. Lewis Jett, West Virginia Univ.
- 10:45 Effect of Compost Application Rates on High Tunnel Tomatoes**
Dr. Mark Hutton, Univ. of Maine
- 11:30 Top 10 Reasons Not to Grow in High Tunnels**
Judson Reid, Cornell Coop. Extension
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Post Harvest - Crystal Room

- 9:00 Cooling Methods and Impact of Delays to Cool**
Marita Cantwell, Univ. of California at Davis
- 9:30 Northeast Garlic Post Harvest Trial Results - Heat Curing, Topping vs. Washing**
Crystal Stewart, Cornell Univ.
- 10:00 Postharvest Handling of Vegetables to Ensure Quality and Safety**
Marita Cantwell, Univ. of California at Davis
- 10:45 Practical Food Safety Strategies for the Pack House**
Rebecca Munro, The Seed Farm and
Andy Andrews, Pennypack Farm & Education Center
- 11:30 New York Farmers Added Cooling Technology Improving Quality and Fostering Economic Development**
Elizabeth Claypoole, Cornell Extension
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Potatoes - Wild Rose Room

- 9:00 Potatoes: What's New - Observation and Research**
Robert Leiby, PA Coop. Potato Growers
- 9:30 Varieties That Look Promising**
Michael Peck, Penn State Univ.
- 10:00 *Update on Management of Potato Diseases**
Dr. Steven Johnson,
Univ. of Maine Cooperative Extension
- 10:45 Health Benefits of Colored Potato Chips**
Dr. Jairam Vanamala, Penn State Univ.
- 11:30 Update on Insect Management in Potatoes**
Dr. Thomas Kuhar, Virginia Tech
- 12:00 Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Small Fruit - Cocoa 1

- 9:00** ***What's New in Blueberry Weed Control**
Dr. Eric Hanson, Michigan State Univ.
- 9:30** **How We Grow and Market Strawberries and Raspberries at Strawberry Tyme Farms**
John Cooper, Strawberry Tyme Farms
- 10:00** **Recycling Horticultural Films: Handling and Marketing**
Dr. Lois Levitan, Cornell Univ.
- 10:45** **Low Tunnels for Strawberries: What Works and What Doesn't**
David Pike, Farm to You Market;
Eric Menard, Dubois Agrinovation and
Kathleen Demchak, Penn State Univ.
- 11:30** **Proper Postharvest Handling of Berries**
Lee Stivers, Penn State Extension
- 12:00** **Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Tough To Manage Weeds - Cocoa Ballroom

- 9:00** ***Identifying Problem Weeds**
Dwight Lingenfelter and Andrew Franenfield,
Penn State
- 9:30** ***Palmer Amaranth - One Weed You Really Need to Know**
Dwight Lingenfelter and Andrew Franenfield,
Penn State
- 10:00** ***Sweet Corn and Cucurbit Weed Control Programs with Q & A**
Dwight Lingenfelter and Andrew Franenfield,
Penn State
- 10:45** ****Applying Herbicides, Avoiding Drift and Calibrating Herbicide Sprayers**
Thomas Ford, Penn State Extension
- 11:30** **To be Announced**
- 12:00** **Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Tree Fruit - Nigerian Room

- 9:00** ****How Do We Adjust Spraying Different Size Trees (Panel)**
Dean Polk, Rutgers Univ. (moderator)
Gary Mount, NJ; J.D. Rinehart, MD;
Chris Baugher, PA
- 9:45** ****Worker Protection Standards**
Jim Harvey, Penn State Univ.
- 10:15** ***Best Management Practices to Minimize Bitter Pit in Honeycrisp**
Dr. Tara Baugher, Penn State Univ.;
Lynn Kime, Penn State Univ.
- 10:45** **Performance of New Fire Blight Resistant Pears**
Dr. Bill Shane, Michigan State Univ.
- 11:15** ***The 2014 Fire Blight Epidemic: Mayhem, Mystery, Myths and Management**
Dr. Kari Peter, Penn State Univ.
- 12:00** **Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Peaches - Trinidad Room

- 9:00** ****Protective Clothing – Dress for Success in Protecting Yourself**
Dr. Kerry Richards, Penn State Extension
- 9:30** **How We Put the Woot in Froot**
Kim Gaarde, Fruit Dynamics
- 10:00** ****Rise in Secondary Pests in Peaches**
Dean Polk, Rutgers Cooperative Extension
- 10:45** ***Observations in the Field of Bacterial Spot on Stone Fruits**
Mark Shannon, Shannon Farm Services, Inc.
- 11:00** ***Bringing IPM Back to Peaches in the Face of BMSB**
Dr. Ann Nielsen, Rutgers Univ.
- 11:30** ***What the Industry Learned about Listeria Outbreak**
Dr. Steve Knabel, Penn State Univ.
- 12:00** **Luncheon Buffet**
Great Lobby and Chocolate Lobby (cash)

Thursday Afternoon, January 29, 2015

Social Media -

- 1:30** **How To Integrate Social Media Into Your Marketing Strategy**
Sarah Lanphier, Nuts About Granola
- 2:00** **Social Service - Using Social Media for Customer Service**
Sarah Cornelisse, Penn State Univ.
- 2:45** **Helping Customers "Find" You**
Shannon Dill, Univ. of Maryland Extension
- 3:30** **Farming Followers**
Julie Bancroft, PA Apple Marketing Board
- 4:00** **Tricks of the Trade**
Shannon Dill, Univ. of Maryland Extension
- 4:30** **Adjourn**

Pumpkins - Empire Room

- 1:30** **We Make Pumpkins Fly Through the Air, Ag-Entertainment**
George Hamilton, UNHCE - Hillsborough Co.
- 2:00** ***Effectively Managing the Mildews**
Dr. Beth Gugino, Penn State Univ.
- 2:45** ***Early Season Virus Infections in Pumpkins**
Dr. Gerald Brust, Univ. of Maryland
- 3:30** ****Health Effects of Pesticides, Get the Facts and Put Them to Use**
Lee Stivers, Penn State Extension
- 4:00** ***Squash Bug Update**
James Wilson, Virginia Tech
- 4:30** **Adjourn**

* before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.
** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.

continued on page 41

High Tunnels - Magnolia Room

- 1:30 *Insect Control in High Tunnels**
Dr. Gerald Brust, Univ. of Maryland
- 2:00 *Disease Management in High Tunnels**
Thomas Ford, Penn State Extension
- 2:45 Variety Evaluation of Kale, Parsley and Legumes**
Dr. Lewis Jett, West Virginia Univ.
- 3:30 Who are the High Tunnel Growers in Philadelphia?**
Thomas McCann, Penn State Extension
- 4:00 Adjourn**

New Equipment - Crystal Room

- 1:30 We Built a New Hydroponic System**
Thomas Childs, Twin Springs Farm
- 2:00 Simple Wash Station Efficiency Tips**
David Hambleton, Sisters Hill Farm
- 2:45 FARMDATA Record Keeping System**
Matthew Steinman, Dickinson College Farm
- 3:30 Update on LED's, Is It Time To Jump In**
Neil Mattson, Cornell Univ.
- 4:30 Adjourn**

Potatoes - Wild Rose Room

- 1:30 *Weed Control Strategies for Potatoes**
Sudeep Mathew, Univ. of Maryland
- 2:00 *Fertility Management for Potatoes**
Dr. Steven Johnson,
Univ. of Maine Cooperative Extension
- 2:45 USDA Breeding Program for Potatoes**
Dr. Kathleen Haynes, USDA/ARS
- 3:30 Report From the US Potato Board and Input for Next Strategic Plan**
Blair Richardson, US Potato Board
- 4:30 Adjourn**

Small Fruit - Cocoa 1

- 1:30 What the Winter of 2013/2014 Taught Us About Floating Row Covers**
Dr. Michael Newell,
Wye Research & Education Center
- 2:00 *Integrated Management of Major Diseases on Brambles**
Dr. Mahfuzur Rahman, West Virginia Extension
- 2:45 To be Announced**
- 3:30 Food Safety Considerations When Using Overhead Irrigation in Strawberries**
Kathleen Demchak, Penn State Univ.
- 4:30 Adjourn**

Tree Fruit - Nigerian Room

- 1:30 **Sprayers 101 – Are You Hitting the Target**
Dr. Kerry Richards, Penn State Univ.
- 2:00 Using Social Media to Tell Your Story**
YGA Panel; Carla Snyder, Penn State Extension (moderator)
Ben Kishbaugh, Big Hill Ciderworks;
Ashlee Dugan, Broad Street Market;
Tyler Butler, Butler Orchards
- 2:45 Early Results of Asian Pear Cultivar Plantings**
Dr. Rob Crassweller, Penn State Univ.
- 3:15 Determining Harvest Maturity of Asian Pears**
Win Cowgill, Rutgers Cooperative Extension
- 3:30 Adjourn**

** before a topic indicates the topic is expected to qualify for a category pesticide applicator license update credit.*

*** before a topic indicates the topic is expected to qualify for a core pesticide applicator license update credit.*

Our new 2015 Commercial Catalog is in the mail now!

Good selection still available, call 800-435-8733.

Look for us at upcoming shows.

Thanks for a good season!

2015 COMMERCIAL CATALOG
Order today! 800.435.8733 or StarkBrosWholesale.com

Stark Bro's Nurseries & Orchards Co.
PO Box 398 • Louisiana, MO 63353 • 573-754-5111 • Fax 573-754-3701
StarkBrosWholesale.com



PENNSYLVANIA APPLE GROWER RECEPTION

Members and guests of the Pennsylvania Apple Marketing Program are invited to enjoy a casual evening of conversation and camaraderie with fellow apple growers and their families.

The reception is also a great time to meet and visit with **US Apple** staff members.

When

Wednesday, January 28, 2015

5 PM - 7 PM

Where

Mid-Atlantic Fruit & Vegetable Convention

Hershey Lodge & Convention Center

Cocoa Suites 3, 4 & 5

Light Appetizers & Open Bar

Sponsored by:



RockTenn

Pennsylvania
Apples



2015 MEMBERSHIP DUES ARE PAYABLE NOW!

2015 MEMBERSHIP DUES - Part I

Membership Categories:

- A. Fruit Grower Membership (Owner or Operator) \$75.00 _____
 *Associate Membership (Employee or Family Members of Fruit Grower Membership) \$40.00 _____
- B. Commercial Membership (Business or Firm related to the Industry) \$75.00 _____
 *Associate Membership (Employees of Commercial Membership) \$40.00 _____
- C. Professional/Subscription Membership (Ext. & Assoc. Personnel, Consultants) . \$40.00 _____
- D. Student Membership (High School and College Students) \$20.00 _____

**Payment for membership dues is NOT to be considered a charitable contribution.*

If you wish to make a donation beyond your dues, please indicate below. Your generosity is greatly appreciated!

Your registration includes a **FREE** 1 yr. subscription to **Country Folks Grower**. Check box if you would like to receive publication.

_____ **Endowment Fund** **Amount of Donation:** _____

_____ **Association** **TOTAL** \$

Membership Name _____

Farm or Business Name _____

Address _____ City/State/Zip _____

Telephone Number _____ FAX Number _____

E-Mail Address _____

2015 MID-ATLANTIC FRUIT AND VEGETABLE CONVENTION

156th Annual Meeting of the State Horticultural Association of Pennsylvania
 at the Mid Atlantic Fruit and Vegetable Convention Hershey Lodge and Convention Center -
 Hershey, PA • January 27 – 29, 2015

REGISTRATION FEES – PART II

Member's Registration:

- Advanced Registration (postmarked by January 16, 2015)
- First person from a farm or company @ \$65.00 = _____
- (Additional family members or employees @ \$60.00 = _____
- Walk-In Registration at Hershey @ \$80.00 = _____

Non-Member's Registration:

- One Day (at door) @ \$110.00 = _____
- Three Day (at door) @ \$150.00 = _____

Workshops (January 26, 2015):

- New Organic Vegetable Producers School @ \$100.00 = _____
- Irrigation Water Toolbox @ \$50.00 = _____
- Basics of Good Agricultural Practices @ \$50.00 = _____
- Pennsylvania Pesticide Applicator License Basic Training..... @ \$50.00 = _____
- Ag Literacy for Growers - Communicating with Consumers and the Media..... @ \$50.00 = _____
- Farm Market Tour @ \$60.00 = _____

FRUIT and VEGETABLE GROWERS DINNER GROWER RECEPTION - DOOR PRIZES - AWARDS

- Tuesday, January 27, 2015 - Nigerian Room @ \$35.00 = _____

TOTAL \$

Names for additional tags needed _____

PLEASE MAKE YOUR CHECK PAYABLE TO: "STATE HORTICULTURAL ASSOCIATION OF PENNSYLVANIA" AND

MAIL TO: Maureen Irvin, Executive Secretary, State Horticultural Association of Pennsylvania
 480 Mountain Road, Orrtanna, PA 17353



BOYER

Nurseries & Orchards, Inc.

Established 1900



Your Source for all Your Fruit Tree Growing Needs!

Fruit Trees Available



Apple*
Apricot
Nut Trees
Antique Apple

Peach
Nectarine
Sweet Cherry
Montmorency Cherry

Pear
Plum
Asian Pear

* Available in a wide range of rootstock



REGISTERED PENNSYLVANIA
DEPARTMENT OF AGRICULTURE

Boyer Nurseries & Orchards, Inc.

405 Boyer Nursery Road
Biglerville, PA 17307

Phone: 717-677-8558 717-677-9567 Fax: 717-677-4026
www.boyernurseries.com email: sales@boyernurseries.com



Orchard Supplies

Aglok Chain Link

- 150' & 500' - and strips 11-1/2"

Corona - Hand Pruners, pruning saws
& aluminum bypass pruners

Cutwell Pole Pruners

- Aluminum & Fiberglass - 6', 8', 10' & 12'

Handy and Wells & Wade Picking Buckets

- all replacement parts available

Hickok Pruners - Aluminum bypass - 28" & 32"

Limb Spreaders - Metal 4" & 6" and Limblok 8"

Orchard Stakes - Metal stakes at 8' & 10'

Trellislok

Vinyltye - 100' meters or 1000' rolls

Stokes - Aluminum straight and step ladders

Replacement parts available for all pruners



**Call for your
Catalog Today!!**