A few weeks back I read an article designed to point out how current naysayers have encouraged us to think societies’ problems are new and unsolvable. A famous naturalist was quoted as follows: “A change in our climate...is taking place very sensibly. Both heats and colds have become much more moderate within the memory of the middle-aged. Snows are less frequent and less deep....The elderly inform me the earth used to be covered with snow about three months in every year. The rivers, which then seldom failed to freeze over in the course of the winter, scarcely ever do so now.” Concerned about the destructive effects of this warming trend, he also noted how “an unfortunate fluctuation between heat and cold” in the spring has been “very fatal to fruits.” Perhaps you recognize the language of the 1700’s and suspect the quote is from Thomas Jefferson. The author revealed it at the end of the article and surprised me with its origin. I don’t dispute the climate is changing, but perhaps a balance of reading history and watching the nightly news is best!

This morning I am freshly back from the November meeting of your Board of Directors. It was certainly good to reconnect with friends and to hear of their successes and tribulations over the past season. And I need to apologize to a few members for not passing the candy dish sooner. There is much good going on in Pennsylvania orchards and the caliber of young growers who have energy, vision and skill is encouraging. We need to do as much as possible to unclog the arteries from government regulation. One never knows when their communication with lawmakers could make a difference. Progress stalled this fall on immigration as Congress has been preoccupied with other issues. Health care and food safety regulations may require full time staff for some growers. ‘Plowing ahead’ just doesn’t mean what it used to for farmers! There are sessions committed to these issues at the Mid-Atlantic Fruit and Vegetable Convention in Hershey January 27-30. What better way to spend a cold winter day than to learn about laws and regulations! If you are able to pawn those meetings off on someone, there will be a myriad of great topics sure to appeal to everyone. The meeting schedule is introduced in this issue—be sure to check it out and plan to attend.

Much time was spent at yesterday’s meeting discussing ways to increase funding for research projects. Thank you to all who contributed directly this past year. Pennsylvania is unique in that the research fund is not a state mandated program. There are no administration fees because of that so every
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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

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

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dollar you give is a full dollar. It also allows for more grower input concerning what projects get funded. The next communication you receive from the committee will have check-off topics that allow you to rank your interest. It can be returned in the same envelope you send your contribution in. A large factor in getting our new plant pathologist, Dr. Kari Peter, was the commitment fruit growers have historically shown to supporting their own research. This in turn attracts other talent and the snowball gets bigger. One effect of retiring personnel that don’t get replaced is there would be no one to speak or question at twilight meetings. Refer back to paragraph 2. Young growers need the older generation to put forth dollars so they will have people to go to for answers. Personally, I like spending money on myself and my own business, but it doesn’t take too much foresight to realize kicking out some cash for research is a golden idea. Think about your farm size, your 2013 crop and your appreciation for being able to find answers when you needed them, and then please consider a year end contribution to the SHAP Research Fund.

Carolyn McQuiston

Editorial Views
By Dr. Rob Crassweller

“NC-140 Meetings”
The first week in November I had the chance to attend the annual meeting of the North Central Regional Research Project No. 140 in Meridian, Idaho. Why Idaho? Well one of our long time members of the project Essie Fallahi is based at the research station in Parma, Idaho just up the road from Boise. Idaho has approximately 21,000 acres of tree fruit. This national project has been in existence since the mid-1970’s. At that time, members of the group included a Who’s Who of Pomology with Mel Westwood, Bob Carlson, Loren Tukey, Bruce Barrit, Roy Rom, Dave Ferree and a host of others.

At this year’s meeting there were about 40 scientists present who work in tree fruit production that all have an interest in finding better rootstocks for all tree fruit crops. Over the years Penn State has planted many new and unusual rootstocks for peaches, apples and cherries. These plantings have been supported by research money from you through the State Horticultural Association of PA. Without those research dollars our industry would certainly look a lot different.

At this meeting we have a chance to view research results from plantings across the country and into Canada and Mexico. Some of the plantings are uniform plantings that are coordinated across many different sites. Other plantings are individual state studies where cooperators are looking at different systems and rootstocks that are of interest just to their region.

Besides our discussions and data sharing, we also had a tour of the local orchards and planting trials. And just as in any orchard tour there is always discussions on how to prune and train the trees. Likewise, there are some differences of opinion on the exact methodology on pruning and training. These differences mainly revolve around the differences induced by the local environmental and climatic differences.

In visiting one of the larger orchards, Sunny Slope, we learned that they were having problems getting enough labor to harvest their fruit. The owner reported that his good pickers were making about $15,00/ hour to pick peaches. He also talked about an innovative program where he was hiring political refugees to harvest fruit. Apparently the Boise area is home to refugees from political insurgencies, and while not all were good workers it was a unique program. The owner commented on the plethora of spoken languages in the orchard. People speaking Thai, Burmese, Spanish, and eastern European languages.

We toured a large packing operation and I was surprised

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that I did not see any plastic bins. They were exclusively using wooden bins. Idaho orchards are an extension of the Washington growing conditions with an arid high climate that required irrigation. Trickle irrigation was utilizing two drip lines per tree row spaced 36 inches apart and buried 4 inches into the soil. The depth was chosen so that their badgers wouldn’t dig up the lines in search of water.

We visited Western Laboratories, a large private company that does nematode analysis, soil testing, foliar analysis, water testing, and pathogen testing for horticultural crops through out the Pacific Northwest. They talked about an interesting service where they will sample 0.5 A grids on a farm to plot nutrient and pathogen levels. With these maps they can precisely recommend where fertilizer is or isn’t needed as well as where pathogens and nematodes are problematic. The intent is to zero in on trouble spots and make appropriate treatments to control the problem.

Next year I will be putting in a planting of Honeycrisp and Fuji on the new Vineland rootstocks. These rootstocks were developed in Canada for their cold hardiness and resistance to fire blight. Some tidbits that I gleaned from the meeting:

- Trees on B.9 tend to be less biennial and they shut down shoot growth sooner.
- Honeycrisp/B9 that undergo stress during the growing season tend to develop color later.
- Trees on B.9 under conditions of fluctuating winter temperatures showed winter injury if there is no snow cover.
- As temperatures increase growers in NC are seeing more southern diseases move into their orchards particularly Glomerallia sp.
- Rootstocks developed from tissue culture seem to have better root systems.
- Pyrodwarf, which give some dwarfing to pears suckers excessively.
- G.11 has no tolerance for replant sites but may be better for vigorous cultivars.
- G.41 which has tolerance for replant sites may be better for weaker cultivars.
- G.935 which has good tolerance for replant sites is cold hardy and probably will work better for weaker growing cultivars.
- G.202 is about M.26 size and is resistant to wooly apple aphids.
- G.210 is being groomed to replace G.30.

USAPPLE, AWC MEET WITH HOUSE LEADERSHIP

USApple’s Diane Kurrle and our partners in the Agriculture Workforce Coalition (AWC) continue working with key Republicans and Democrats in the House to urge action and find a path forward on meaningful agricultural labor reform.

Last week, Kurrle joined CEOs from the AWC at a meeting with House Minority Leader Nancy Pelosi (D-Calif.) and a number of House Democrats active on the issue. Pelosi and the majority of the Democrats in the House have cosponsored a bill introduced by Representative Joe Garcia (D-Fla.) modeled after the comprehensive immigration bill which passed the Senate in June. The legislation includes the Senate agriculture provisions.

House Republicans Jeff Denham (R-Calif.), David Valadao (R-Calif.) and Ileana Ros-Lehtinen (R-Fla.) joined the Democrats in this effort. However, it is unlikely that many more Republicans will sign on to the bill and there is acknowledgement from everyone that it will not be brought to the House floor for a vote.

House Judiciary Chairman Bob Goodlatte (R-Va.) does not support a comprehensive approach to the issue but is instead electing to consider individual bills on a piecemeal basis. Following the meeting with Pelosi, the CEO group met directly with Chairman Goodlatte and his senior staff to discuss the needs of agriculture both in the short and long term. The discussion was thorough and productive with follow-up meetings between Judiciary staff and the AWC planned. We continue to seek a solution that works for agriculture and will pass the House with strong Republican support. (USApple, Apple Bites, November 4, 2013.)

USAPPLE FILES COMMENT LETTER ON FDA PROPOSED PRODUCE FOOD SAFETY RULE

Near the end of October, USApple filed a comment letter with the FDA responding to the agency’s “Standards for the Growing, Harvesting, Packing and Holding of Produce for Human Consumption,” commonly referred to as the “Growing-Harvesting” rule. The rulemaking comment period, which closes on November 15, is part of the process of implementing the Food Safety Modernization Act (FSMA), the most sweeping reform of food safety regulation in over 70 years.

In the development of the comments, USApple coordinated with the United Fresh Produce Association, the Northwest Horticultural Council (NHC) and the Pacific Northwest
Food Safety Committee. USApple’s Technical Food Safety Task Force, chaired by Chris Schlect, NHC President, provided assistance in developing and reviewing the comment letter.

There is an old saying “If you didn’t bother to vote, don’t complain” that could well apply to the food safety rule proposals. The comment period, which closes November 15, offers growers the opportunity to communicate their concerns directly to the FDA. (USApple, Apple Bites, November 4, 2013.)

FARMERS TELL CONGRESS OF THE NEED FOR IMMIGRATION ACTION

Several Pennsylvania Farm Bureau members traveled to Washington DC in late October to push Congress to act this year on immigration reform. Adams County fruit grower Chris Baugher, who joined the trip, said he had a difficult time this year finding enough labor to help with the harvest. Like many of the state’s fruit growers, Baugher’s operation relies on immigrant labor to get the harvest completed.

“We lost a lot of fruit because we lacked the labor supply,” he said. “They can do what they want with the border, but we need a legal work force.”

Earlier this year, the Senate passed a comprehensive immigration bill, but the House has yet to take a vote on the matter. During the October visit, Farm Bureau members met with Pennsylvania House members to urge their support for immigration reform this year.

Farm Bureau members represented a cross-section of agriculture including mushroom, fresh vegetables, and produce.

It is important for farmers, regardless of their commodity, to show a unified front when talking about immigration reform, said Joe Fecondo, a mushroom grower who traveled to Washington with Farm Bureau. “We have multiple sectors of agriculture talking about this issue,” he said. “A lot of different groups are coming together and talking with one voice.”

During their visits with House members, Pennsylvania farmers told of what is at stake if agriculture labor is not addressed by Congress. “If we don’t have adequate labor, you might as well take the trees out,” Baugher said.

Migrant labor supports more than just the local farm, Baugher said. Adams County is home to Knouse Foods, which employees hundreds of people and processes millions of apples a year into juice and apple sauce, he said.

Plus, food grown in the United States receives more scrutiny than produce coming from other countries, Fecondo said. “We need to ensure the American people that we have a safe, reliable, food supply,” he said.

FARM BILL CONFERENCE COMMITTEE HOLDS FIRST MEETING

During the last week of October, the House-Senate Farm Bill conferees sat down for their first meeting. It was an opportunity for the forty-one member panel to present opening statements and lay out their priorities for the upcoming negotiations.

Senate Chairwoman Debbie Stabenow (D-Mich.) and House Chairman Frank Lucas (R-Okla.) both expressed confidence that they would reach agreement and get the job done, as did Ranking Members Thad Cochran (R-Miss.) and Collin Peterson (D-Minn.).

Passage of a new Farm Bill is a top priority for USApple as key programs including the Market Access Program (MAP), Specialty Crop Block Grants, Specialty Crop Research Initiative and fruit and vegetable snack program all receive their funding and authorization through the legislation. Both the House and Senate versions of the bill are good for specialty crops and provide level or even slight increases in funding. The most contentious issues remain the level of reforms and funding cuts to SNAP (formerly food stamp) and farm subsidies.

USApple and the Specialty Crop Farm Bill Alliance (SCFBA) will follow the process closely and work with key offices as the negotiations move forward. (USApple, Apple Bites, November 4, 2013.)

FARM BUREAU TO APPEAL EPA CASE

Pennsylvania Farm Bureau and the American Farm Bureau Federation have filed a notice of appeal in a lawsuit against the federal Environmental Protection Agency over its Chesapeake Bay cleanup plan. The action is the first step in appealing a recent ruling by a federal judge that allows the EPA to move ahead with its sweeping nutrient and sediment reduction plan in the Chesapeake Bay Watershed.

Farm Bureau is concerned the decision by Judge Sylvia Rambo gives EPA unchecked authority to make local land use decisions throughout the watershed under proclamation of a Total Maximum Daily Load (TMDL). Farm Bureau has contended the Clean Water Act gives state and local governments the power to make those decisions.

“We are appealing the court decision, because it would provide EPA with unbridled power to make decisions that could negatively impact farmers, homeowners, municipalities, school districts and businesses within the watershed,” said PFB President Carl T. Shaffer.

That plan could make it difficult for farmers to manage their businesses because of the restrictions. Pennsylvania farmers, regardless of this court decision, will continue to implement conservation practices that prevent soil run off and prevent nutrients from reaching waterways, Shaffer said.

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Research minimizes effects of federal produce standards on mushroom industry

Pennsylvania receives nearly $1 million to grow specialty crop industry

Pennsylvania has received more than $956,000 in federal grants to increase the visibility and usage of specialty produce, nursery and horticulture products. Funding comes through the U.S. Department of Agriculture’s Specialty Crop Block Grant program, authorized under the Farm Bill.

“Specialty crops are an important part of Pennsylvania’s diverse agriculture industry, contributing more than $1 billion in sales each year,” said Agriculture Secretary George Greig. “These grants will help foster innovation, strengthen our farms and improve food access and quality for all Pennsylvanians.”

Projects funded through the program focus on industry priorities including food safety, nutrition and marketing. Recipients include:

- **Pennsylvania Apple Marketing Program**: $50,000 to promote Pennsylvania apples
- **National Peach Council**: $30,000 to partner with the Pennsylvania Peach and Nectarine Research Program to promote Pennsylvania peaches
- **Pennsylvania Wine Association**: $40,000 to develop a mobile app to market Pennsylvania wine
- **Pennsylvania Cooperative Potato Growers**: $50,000 to improve frozen and prepared potato foods by identifying the best potato varieties for pan-frying
- **American Mushroom Institute**: $50,000 to develop training for grower best practices and food safety

Landowner Liability Bill on Way to Governor’s Desk

The Pennsylvania General Assembly has adopted a landowner liability bill for hunting on private property, which has been a priority issue for Pennsylvania Farm Bureau. The bill, which now heads to the desk of Gov. Tom Corbett, would protect landowners from liability when a hunter commits a Game Code violation on their property.

Currently, landowners could be found liable if a hunter commits a violation, such as taking game out of season, on their property. Senate Bill 648, introduced by Sen. Richard Alloway, will remove a landowner’s liability in those circumstances.

“Current law provides a strong deterrent for landowners to allow anyone else to hunt or trap on their land, and the potential consequences create a serious issue for farmers and others who need to protect their crops,” Alloway has said.

The bill adopted by the General Assembly removes the liability regardless of whether a landowner allows hunters to access their property for free, or charges a fee.

State Rep. Introduces Pension Reform Bill

State Rep. Glen Grell, a leading proponent of pension reform, has introduced a bill that would address Pennsylvania’s looming pension crisis. Grell’s three-phase plan would alter the state’s current pension system to bridge the gap of a $45 billion underfunded pension liability. State and school district employees are currently enrolled in a defined-benefit pension plan system.

Grell’s plan calls for moving new employees, hired after June 30, 2015, into a cash-balance plan that would set fixed contributions for both employers and employees. It would also alter the current formula that considers an employee’s length of service and makes benefit calculations based on the final years of employment.

Grell is also advocating that the state borrow $9 billion to inject into the pension system through a series of bond purchases, which would reduce the pension liability by $15 billion. Pennsylvania underfunded its pension system for 10 years, which contributed to the current crisis, Grell said.

The third portion of Grell’s plan would offer current state and school employees the option of making a lower contribution rate and in return agree to changes in the final average salary calculations used to determine retirement benefits. Pennsylvania Farm Bureau is reviewing Grell’s plan, but is supportive of legislation that address pension reform so that landowners are not faced with increased taxes to pay for the problem.

Property Tax Reform Bill Passes House

A bill that would give school districts the ability to move away from property taxes, and instead turn to other sources for funding, has passed the state House. The bill now moves to the Senate for consideration.

Pennsylvania Farm Bureau urged House lawmakers to support the Optional Property Tax Elimination Act, introduced by Rep. Seth Grove, because of the increased burden that many farm families are facing with property taxes. The bill gives local school districts the ability to shift from property taxes to earned income and related taxes. School districts are not required to shift their method of taxing.

“This flexibility is why House Bill 1189 will be successful,” Grove said. “It does not mandate a one-size-fits-all fix. It allows local communities to choose their tax base. Earlier this session, House lawmakers defeated a bill that would have eliminated property taxes and instead increased earned income and sales taxes to pay for schools.

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PENN STATE ADDRESSES YOUTH FARM SAFETY
Penn State experts are working on new approaches to address farm safety for youths and young adults working in production agriculture. The goal is to reduce the risk of injury or death in young people who are working in the agriculture sector. The Safety in Agriculture for Youth project, led by experts in the College of Agriculture Sciences, will develop programs, activities and curriculum to reduce injuries to youth on farms.

Last year, there were 28 fatalities related to agriculture operations in Pennsylvania. Of those fatalities, a quarter involved youths age 19 or younger, said Dennis Murphy, a professor of agriculture safety at Penn State.

Penn State hopes the two-year project, supported by a $600,000 grant from the U.S. Department of Agriculture, creates a national clearinghouse for agriculture safety and health curriculum for youth, Murphy said.

“This national collection of resources must be sensitive to all types and scales of production agriculture and to all ages and experience levels of target audiences,” Murphy said. “It also must include parents and other educators, must be culturally appropriate, and must be useable in both formal [school] and non formal [home and ag industry] educational settings.”

According to Murphy, a national steering committee will engage partners, such as Farm Bureau and FFA, to provide oversight and direction. “The committee will work to identify curriculum and testing gaps, certification needs and industry-recognized credentials,” Murphy said.

Penn State will work with land-grant institutions across the country on a number of projects including virtual learning environments, a 10-hour agriculture safety course and promotional strategy for safety utilizing programs like FFA and 4-H.

Pennsylvania to Showcase Agriculture Education in 2014
Pennsylvania has been selected to host the 2014 National Agriculture in the Classroom Conference, providing a chance to showcase the diversity of the state’s agriculture industry at a national level. For more than 20 years, the Pennsylvania Friends of Agriculture Foundation, a charitable organization supported by Pennsylvania Farm Bureau, has hosted a statewide Ag in the Classroom conference in State College.

This marks the first time that Pennsylvania has been selected to host this national conference. Several hundred educators from across the country are expected to attend the conference for four days of workshops and tours. The workshop, held June 23-27 in Hershey, will help teachers learn new ways to teach agriculture across various curriculum areas. The Pennsylvania Friends of Agriculture Foundation’s statewide workshop will be held in conjunction with the national conference.

The Pennsylvania Ag in the Classroom workshop will return to State College in 2015. If you know an educator who would be interested in attending the conference, encourage them to visit: www.pafbfriends.org.

PDA Hosts Celebration for 25 Years of Farmland Preservation
Moments after their farm was included in the Pennsylvania farmland preservation program, Jere and Angie Hissong opened their barn doors for a celebration of the 25th anniversary of the program. The Pennsylvania Department of Agriculture selected the Hissong farm in Franklin County as the backdrop for a celebration and news conference on the success of farmland preservation in the state.

Pennsylvania leads the nation in farmland preservation, with more than 480,000 acres set aside from development. Nearly 4,500 farms in 57 counties have participated in the program since its inception in 1988. The Hissongs, who belong to the Franklin County Farm Bureau, were thrilled the state chose Spring House Farms, which dates back to the American Revolution, as a host site.

Agriculture Secretary George Greig said the success of the state’s farmland preservation program is due in large part to the foresight of elected leaders, who were concerned about the loss of farmland, and farmers who wanted to preserve ground for the next generation.

FRUIT FARM TO DEMONSTRATE BIOMASS GREENHOUSE HEATING SYSTEM
Twin Springs Fruit Farm is hosting a field to demonstrate their new biomass greenhouse heating system. The date is Tuesday, December 10, 2013. Twin Springs Fruit Farm will offer a field day to display the new biomass heating system for greenhouse heating.

Twin Springs has been growing greenhouse vegetables since 1992 and recently upgraded their former coal system to woody biomass. The diversified agricultural operation installed a 3.5 million BTU boiler to handle their existing 23,000 SF of greenhouse space and a planned 10,000 SF expansion. Biomass equipment is now available for smaller operations requiring large amounts of heat and can offer considerable savings to a variety of operators.

The date is Tuesday, December 10, 2013 from 9:00am to 11:30am. Topics will include biomass basics, sourcing fuel, solid fuel considerations, and biomass economics. The farm is located at 936 Orchard Rd, Orrtanna, Pa 17353 approximately seven miles west of Gettysburg. Please contact the farm at 717-642-8988 for more information. (Penn State Extension)
The Pesticide Education team is partnering with the Penn State Horticulture Team to offer the second annual 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. Courses will be held Thursday **January 9th and 23rd**, 2014 from 1:30 to 4:30 pm at the Adams County Agricultural and Natural Resource Center, 670 Old Harrisburg Rd., Gettysburg, PA 17325. **Jan. 9th**: “Fate of Pesticides in the Environment” & “Compatibility/Incompatibility of Chemical Formulations”  
**Jan. 23rd**: “Fruit Tree Pollinators” & “Pesticide Applicator Exam Review”  
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 Catherine Lara at cyll@psu.edu or 717-334-6271, ext. 315. Pesticide applicator credits available pending PDA approval.

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Workshop Agenda:
10:30 am Welcome
10:35 Workforce Management
11:50 Lunch
12:20 pm Young Grower Panel
12:50 Market & Product Diversification
1:50 Break
2:00 The Business Model Canvas
3:00 Young Grower Panel
3:30 Resources
3:45 Survey
4:00 Adjourn

Lunchtime and panel discussions will allow you to make contacts and ask questions! Registration is $65 and includes lunch.

For more details contact Catherine Lara: cyL1@psu.edu or 717-334-6271 ext. 315 Register by January 17th at:
http://extension.psu.edu/plants/tree-fruit/events

This publication is available in alternative media on request. Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.
Water Limitations a Major Influence on Crop Protection Recommendations

California faces a tough water situation, with the USDA showing 84 percent of the state in extreme to severe drought conditions following two consecutive years of limited rainfall. According to the California Department of Water Resources, water that flows through the Sacramento-San Joaquin Delta serves the majority of the state’s population and irrigates millions of acres of farmland. With that supply at risk, regional growers cannot afford to simply hope for more timely rains and renewed watershed snowfalls.

A recent survey conducted at the 2013 California Association of Pest Control Advisers (CAPCA) fall conference showed water resources are a significant factor for almost all crop production decisions for citrus, cole crops, cotton, fruiting vegetables, grapes, leafy vegetables, tree fruit, tree nuts and other California crops. The survey, sponsored by DuPont Crop Protection, was completed by pest control advisers (PCAs) attending the conference. More than 80 percent of the PCAs surveyed said water availability affected some or all of their grower clients in 2013. The survey ranked water quality, irrigation management and crop yield as top concerns.

When asked how they think growers will respond to regional water shortages, PCA top predictions included:

- Consider alternative crops or new crop production methods
- Invest more in water use efficiency
- Fine-tune irrigation systems
- Use integrated pest management to control pests and weeds that reduce crop production efficiency

“In California and other Western states, efficient water use will require a combination of large and small-scale solutions,” said Wayne Steele, Western region development manager, DuPont Crop Protection. “DuPont is partnering with pest control advisers and other key influencers in agriculture to offer crop protection recommendations that can help make the most of our precious water supply. “As growers complete 2013 and plan for 2014, for example, an effective and timely herbicide program can help control weeds that compete for water and nutrients. This can help optimize crop production while maximizing valuable water resources. Residual weed control is also important. After crops are established, weeds can impede valuable irrigation in the root zone. Managing insects and diseases can help make the best use of available water as well, Steele added. “We know that vigorous, healthy crops make more efficient use of available water, so protection from fungal diseases and insectsis invaluable.”

Environmental-Friendly Thinning in Apple by Use of ‘Baum’ Device
By Basak, I Juras, P. Wasrzynczak & M. Blanke

Experiments on mechanical thinning using the BAUM device, designed at the University of Bonn, were initiated in 2008 on 12-year-old apple trees orchards of cvs. ‘Šampion’, ‘Jonagored’ and ‘Pinova’, on M.9 rootstocks, growing in neighboring rows under similar conditions. All three cultivars were thinned mechanically on the same day, irrespective of flowering stage. Ten treatments were tested on each cultivar. In four years, the effect of thinning as related to two vehicle speeds (5 or 7.5 km/h) versus two rotor speed (360-380 and 420-460 rpm) was evaluated. At the time of mechanical thinning, the flowering of ‘Šampion’ was the most advanced (2-3 flowers open/cluster), while ‘Pinova’ and ‘Jonagored’ flowered mostly at the balloon stage, with the king flower frequently open. Mechanical thinning was performed with a vehicle speed of 5 km/hour and 360 rpm rotor speed and also combined with BA 50 mg/L (Paturyl 47 ml/100 L) at the 10-12 mm fruitlet diameter or by hand thinning after June drop. Apple trees thinned with BA or by hand only were used for comparison. The use of the BAUM machine caused a reduction of fruit set, depending on the cultivar and on the combination of tractor speed and rotors speed. Chemical thinning performed with BA reduced fruit set more efficiently than mechanical thinning alone. Combined application of BA at low dose and mechanical thinning caused the strongest reduction of fruit set and the largest increase in mean fruit weight and the yield of marketable fruits while slightly diminished the red colouration of the skin of the cultivars ‘Šampion’ and ‘Jonagored’. Hand thinning after June drop increased the effects of mechanical thinning, too, but was less effective than use of BA. No major damage of leaves and fruits were noticed as well as effects on return bloom as related to the thinning methods tested.

(From Acta Horticulturae 998:43)
Modeling of Weather Parameters to Predict Russet on Golden Delicious Apple
By C. Barcelo-Vical, J. Bonany, J. Martin-Fernandez & J. Carbo

Russet on ‘Golden Delicious’ apple (Malus x domestica Borkh.) fruit is a physiological disorder that causes major economic losses to growers. Large variations occur in the severity of russet from one year to another. In Girona (Spain), good correlations were found between the annual severity of russet at harvest and several weather parameters measured shortly after full bloom. A specific statistical methodology for the analysis of compositional data (CoDa) was used to establish these correlations. The most important factor was the percentage of time at relative humidity values > 55% from 30 – 34 d after full bloom (DAFB), which yielded a high correlation ($R = 0.80$). The percentage of rainy days from 0 – 34 DAFB was also positively correlated with the severity of russet ($R = 0.80$). Ordinal logit regression models that included these two climatic variables strongly predicted a low, moderate, or high annual severity of russet. Understanding the effects of weather on russet, and developing predictive models may help to manage the marketing of this apple variety which is prone to russet in some areas of cultivation.

(From J. Hort. Sci. & Biotech. 88:624)

A New Technical Device for Thinning Apple Fruit for Sustainable Agriculture
By L. Damerow, L. Schulze, M. Blanke

A novel device was developed at Bonn university to thin fruit crops at the flowering stage in order to improve fruit quality (fruit size, colouration, sugar vix taste, firmness and storability) and overcome alternate bearing for sustainable agriculture and horticulture. The novel device consists of three horizontal rotors. Their brushes remove up to 1/3 of flowers in slender spindle trees; by selecting a range of combinations of brushes, rotor speed and tractor speeds, the amount of removed flowers can precisely determined from 0 to 33%. Results from 3 years (2005-2007) on apple varieties including ‘Estar’ ‘Braeburn’, ‘Gala’ and ‘Golden Delicious’ showed that the novel device can precisely remove flowers not only in the tree periphery, but also close to the tree trunk where fruit of lesser quality otherwise develop. Rotor speeds of between 300-420 rpm showed the best efficacy of flower thinning using tractor speeds of between 5-7 km/h. Damages to branches and leaves were less than 8% at the maximum employed rotor speed of 420 rpm used for thinning. The device saves labour cost otherwise required for hand-thinning in the order of 15-30 hours/ha, equivalent to ca. 100 US $ /ha. The cost of the novel device per hectare is estimated at ca. 100 US $/ha/year based on a life-span of 10 years and an area of 20 ha to thin each year. The novel device may be an alternative for both organic and integrated fruit growers, particularly as chemical thinning agents become less available for environmental reasons. The novel device with its precise thinning mode may also have a market potential not only for apple, but also certain stone fruit and Mediterranean fruit crops, where thinning and achievement of a high fruit quality is required for successful economic returns.
Winter Meetings Planned for Pennsylvania Tree Fruit Growers  By John Esslinger, Penn State Extension Educator

Penn State Extension has planned nine educational meetings for tree fruit growers throughout Pennsylvania. The meetings are designed to address current challenges with the latest research based information. The program highlights include:

- Managing Bacterial Diseases on Tree Fruit
- Revisiting IPM in a World with BMSB and SWD
- The Updated Tree Fruit Production Guide – Integrated Recommendations for Successful Fruit Production
- Protecting Pollinators from Pesticides
- Precision Spray Application Technologies
- Pesticide Applicator Training

**Dates and locations:**

Tuesday, Feb. 11—Central Susquehanna; Contact John Esslinger, cje2@psu.edu
Wednesday, Feb. 12—Southeast Region; Contact Tanner Delvalle, tcd125@psu.edu
Thursday, Feb. 13—Northeast Region; Contact John Esslinger, cje2@psu.edu
Monday, Feb. 17—Adams County; Contact Tara Baugher, tab36@psu.edu
Tuesday, Feb. 18—Lancaster/York Co.; Contact Tim Elkner, tee2@psu.edu
Wednesday, Feb. 19—Franklin County; Contact Tara Baugher, tab36@psu.edu
Tuesday, Mar. 4—Appalachian Fruit Growers, Bedford; Contact Tom Ford, tgf2@psu.edu
Wednesday, Mar. 5—Western PA; Contact Bob Pollock, rcp3@psu.edu
Thursday, Mar. 6—Erie County; Contact Andy Muza, ajm4@psu.edu

These meetings are a great opportunity for growers to hear from the researchers who are working on the critical issues facing the tree fruit industry. Growers have a chance to interact with each other and find out what’s going on at other orchards.

Pre-registration, pesticide license certification, and fee information is available from the contact person in each region.

If you are a regular participant at your local tree fruit meeting expect an announcement to come in your mail. If you have not attended one of these programs in the past, you may e-mail the contact person to get on the meeting announcement mailing list. If you don’t use e-mail call your local Extension office to get a phone number for the contact person for the meeting nearest you. The registration fees for these programs will be listed in the meeting announcement. Mark your 2014 calendar now and plan to attend the educational meeting in your region.

Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce. If you have questions about the physical access provided, contact Penn State Extension, at 717-334-6271, in advance of your participation or visit.

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Long-term Leaf Mineral Nutrition in Pacific Gala apple as Affected by Rootstock Type and Irrigation Systems During Six Stages of Tree Development
By E. Fallahi, K. Arzani & B. Fallahi

Use of an efficient rootstock and irrigation system are essential to establish a high-density orchard with a high production potential. High production becomes more important as World population increases and the availability of usable agricultural land and irrigation water decrease. Rootstock vigour and irrigation method are among the most important factors that affect the uptake of mineral nutrients and thus tree growth, fruit yield, and fruit quality attributes in apple (Malus X domestica Borkh.). The effects of four rootstocks and two irrigation systems on leaf size and mineral nutrition, and on the interaction between leaf nutrient concentrations, growth, and fruit quality attributes were studied over 4 years in ‘Pacific Gala’ apple. Evapotranspiration (ETc)-based irrigation scheduling, adjusted for the percentage of ground shading, was used for both the sprinkler and drip irrigation systems. Leaf calcium (Ca) concentrations decreased, but leaf potassium (K) concentrations increased with increasing rootstock vigour, resulting in the highest leaf Ca, but the lowest leaf K concentrations in trees on ‘Budagovsky 9’ (B.9) dwarfing rootstock. On average, trees supplied by drip irrigation had larger fruit and higher leaf magnesium (Mg) and manganese (Mn), but lower leaf Ca, K, zinc (Zn), and copper (Cu) concentrations than those irrigated using the sprinkler system. A significantly lower volume of water was applied to trees using drip irrigation than by sprinkler irrigation. Highly-negative correlations were found between leaf K concentrations and leaf dry weight percentages (DW%), between starch degradation pattern (SDP) and fruit firmness, between leaf K and leaf Mg concentrations, and between leaf K and leaf Mn concentrations. Highly-positive correlations existed between leaf N and leaf Fe concentrations, between fruit yields and leaf N concentrations, and among the concentrations of most leaf micro-nutrients.

(From: The Journal of Horticultural Science & Biotechnology 88:685)
Effect of Three Different Irrigation Regimes on Young Apricot Trees
By C. Bussi & D. Plenet

The effects of three different irrigation regimes were compared in an apricot (Prunus armeniaca L. Batsch, ‘Bergeron’) orchard over 5 years from the time of planting. The regimes were based on measuring crop evapotranspiration ($ET_c$), or by tensiometric or dendrometric scheduling methods. Under the dendrometric method, the threshold for irrigation, based on trunk growth rate (TGR) and maximum daily shrinkage (MDS), was assessed over the first 3 years, then modified in the last 2 years according to the results obtained. Compared to $ET_c$ or tensiometric methods, the dendrometric method led to considerable reductions in the amount of water applied over the 5 years of the experiment (by -66% and -54%, respectively), without significantly affecting fruit yields or average fruit weights. Total soluble solids contents tended to be higher, and the extent of the red colour of the peel was higher under the dendrometric method than under the $ET_c$ or tensiometric methods. The trunk cross-sectional areas (TCSA) of apricot trees were reduced under the dendrometric method compared to the $ET_c$ or tensiometric methods, but only during year-3 of the experiment. During year-4, TCSA values tended to recover when applying the same amount of water under the dendrometric method as under the $ET_c$ method. The incidence of pitburn was lower under the dendrometric method than under the $ET_c$ or tensiometric methods, and appeared to be correlated with the percentage of the total water applied before fruit ripening. The restricted application of water was assumed to have had an impact on the incidence of pitburn by improving calcium concentrations in apricot fruit. Restricting irrigation from the time of planting is therefore not only a relevant strategy to conserve water, but also to improve fruit quality in an apricot orchard.

(From J. Hort. Sci & Biotech. 88:519)

Mechanical Regulation of Crop Load in Fruit Trees

Thinning is a prerequisite for regular yields of high quality fruit in terms of fruit size, color, firmness and soluble contents (sugar), and overcoming alternate bearing. Chemical thinning in fruit production is characterized by a rapid alternation of authorized products. The validity of authorizations is in many cases limited to a few months, and the use of many chemical products depends heavily on temperature conditions. Lime-sulfur, the only preparation used in organic farming, is not very effective. First experiments with mechanical thinning (‘Darwin2000’) were carried out at the end of the nineties. These experiments, however, revealed the following shortcomings: a) removal of fruits on the periphery, which are usually desirable due to their quality, b) extensive damage to leaves and branches, c) incalculable shedding of immature fruit at a later point in time (overthinning).

The aim of this project is to develop and test a technical system for the mechanical, non-selective optimization of fruit density per tree in apple farming. This is intended to improve fruit quality (number and size of fruit), to provide a means of evening out alternate bearing behavior, and to level work peaks.

(To view the machine go to www.landtechnik-alt.uni-bonn.de/ifl_research/ifl_research_project.php?sec=PP&no=18)
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Fruit thinning in Pome and Stone Fruit: State of the Art  By D. Greene & G. Costa

Fruit thinning is an activity that is normally done over a relatively wide time period from bloom until fruit grow to above 18 mm in diameter. Manual, chemical and mechanical methods are used, alone or in combination, but the method chosen depends upon species, climatic conditions and the historic reliability of the proposed method. Pome-fruit are most frequently thinned using chemical methods whereas stone-fruit are routinely thinned manually. The chemicals most frequently chosen to thin pome-fruit, and apple in particular, at bloom are 2-chlorophosphonic acid (ethephon), ammonium thiosulfate (ATS), oil and lime sulfur while the auxins naphthaleneacetic acid (NAA) and naphthaleneacetamide (NAAm), the cytokinin 6-benzyladenine (6-BA) and, in some locations, the insecticide carbaryl are applied at the fruitlet stage. Stone-fruit and in particular peach are most frequently thinned at bloom using bloom thinners (caustic compounds, dormancy breaking agents, oils) and fruitlet thinners are infrequently used. In this category, ethephon has been tested but it is not been shown to be very reliable and there are undesirable side effects that do not allow this formulation be used as a routine practice. Recently mechanical thinning has emerged as potential viable option for thinning both pome and stone fruit using the Darwin and Baum machines. The precision and predictability of thinners and thinner responses have been significantly improved using newly developed modeling systems that monitor fruit growth or estimate the carbon balance within a tree. In addition, new molecules have emerged and are under evaluation that shows real promise as new chemical thinners. These include the photosynthesis inhibitor metamitron (Brevis) and two naturally occurring compounds, abscisic acid (ABA) and 1-aminocyclopropane-1-carboxylic acid (ACC).

(From Acta Horticulturae 998:93)

Dr. Carl S. Bittner Travel Fellowship Award
Sponsored by the State Horticultural Association of Pennsylvania

PURPOSE:
The purpose of the Bittner Travel Fellowship Award is to expose young people working in the Pennsylvania fruit industry to new ideas on fruit production being used in other areas of the world. In order to do this, the State Horticultural Association of Pennsylvania has established a Fellowship of up to $500 that can be awarded annually to someone working in the fruit industry, and promoting leadership within the society.

RECIPIENT:
Must be a fruit grower, or someone else 18 yrs. or older, associated with fruit production in Pennsylvania who would like to travel outside the state of Pennsylvania.

The recipient would be expected to make a short presentation to the SHAP membership at the annual meeting concerning the information learned in this travel.

APPLICATION PROCEDURE:
To apply, a brief explanation of the proposed trip should be submitted in writing. The application letter should include the name, address, age, and potential trip being considered by the applicant.

Applications should be submitted by November 1st to be considered for use during the subsequent year. Applications for the award should be submitted to:

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

The SHAP Board of Directors will review the nominations prior to their November Board meeting, at which time they will make the final decision.

The award will be presented at the Annual Fruit and Vegetable Growers Dinner in January.
The 2014 Mid-Atlantic Fruit and Vegetable Convention will be held January 28 to 30, 2014, 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. The North American Raspberry and Blackberry Growers Association will be joining the Mid-Atlantic Convention in 2014 as will the Virginia State Horticultural Society. This year’s convention will again feature several pre-convention workshops and a trade show with over 165 exhibitors expected.

The keynote speaker for this year’s Convention is Steven Wiley with the Lincoln Leadership Institute in Gettysburg. Steve is a proven entrepreneur, author, and highly acclaimed speaker who has influenced and entertained tens of thousands of top executives from around the world. He will speak on January 28 at 11:00 a.m. addressing the topic “Performance in a Rapidly Changing Environment.” Steve brings a wealth of knowledge in the areas of leadership development, marketing, negotiation, sales and business development—skills growers can use in a small family farm business, a larger agricultural business, or community and church organizations.

His business experience includes the founding of three companies: two international franchise organizations and a national chain of fleet management centers. He has successfully negotiated multi-million dollar funding agreements for his own companies with some of the top venture capital organizations in the world. His lucrative and varied high-ticket consultative selling and negotiating experience began over twenty years ago and includes tens of millions of dollars in the sales of companies, divisions, hard goods, and services. His strong leadership ability has earned him recognition in top publications including Entrepreneur Magazine, USA Today, and Entrepreneur Magazine. Over the past ten years he has conducted thousands of seminars on negotiation, sales leadership and wellness for numerous public and private sector organizations.

The day before the main Convention opens, the Young Growers Alliance will sponsor a workshop entitled: Equipping a New Generation of Specialty Crop Growers which will focus on entrepreneurship, team-building and opportunities for innovation. Other pre-convention workshops include: Raspberries and Blackberry Production, Greenhouse Short Course, Good Agricultural Practices, Getting Started in Vegetable Production, Creating Outstanding Gift Baskets and Employee Etiquette. On January 29, the session “Técnicas de Producción de Frutas y Hortalizas” will be presented especially for Spanish speaking workers in the fruit and vegetable industries. It will feature various relevant production presentations in Spanish. That evening a workshop on Vegetable Seed Heat Treatment will be offered.

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 36 years. 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. The Convention has become one of the premier grower meetings in the Northeast and is pleased to be joined by the Virginia State Horticultural Society on a continuing basis beginning in 2014.

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.

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, Vine Crops, Pumpkins, Emerging Trends in CSAs, Wholesale Marketing, Organic Vegetables, Greenhouse Ornamentals, Greenhouse Vegetables, Asparagus, Herbs, New Vegetable Equipment and Labor/Farm Management.

On the second day, sessions on Direct Marketing 101, Agritainment, Raspberries/Blackberries, Tomatoes, Tree Fruit, Peaches, Potatoes, General Vegetables and GMO’s will be offered. The Convention will close on the third day with sessions on: Tree Fruit, Sweet Corn, Strawberries, Blueberries, Food Trends, Digital Marketing, High Tunnels, Season Extension, Cut Flowers, Cole Crops, Soil Health, Peppers/Eggplant and Value-Added Products.

The eighth annual Mid-Atlantic Cider Contest will be conducted during the Convention to determine the best tasting cider produced in the region. On January 28, fruit and vegetable growers will gather for the annual Fruit and Vegetable Growers Banquet which will include awards and recognitions. On January 29 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 four 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.
Monday, January 27, 2014

Greenhouse Short Course
(fee $45 - includes lunch)
9:00  Registration
9:30  Crop Scheduling Concepts: examples in crop scheduling for both ornamentals for bedding plants and vegetable transplants
Thomas Ford, Penn State Extension
10:15  Growing Media and Managing Media pH
Steven Bogash, Penn State Extension
11:00  Fertilizing Greenhouse Crops
Donald Coulson, Miller Chemical
12:00  Lunch (included)
12:45  Managing Greenhouse Diseases
Alan Michael, Penn State Extension (retired)
1:45  Managing Insect and Arthropod Pests in the Greenhouse (including predators and biological controls)
Steven Bogash, Penn State Extension
2:30  Marketing Greenhouse Crops in Today’s Highly Competitive Environment
Thomas Ford, Penn State Extension
3:15  Hottest Greenhouse Crops: What to Grow
Steven Bogash & Thomas Ford
Penn State Extension

Keeping Fresh Produce Safe Using Good Agricultural Practices  – (fee -$40 – lunch on your own)
10:00 a.m. to 4:00 p.m.
This 5 hour workshop focuses on the basics of farm food safety. Produce and fruit farmers can learn how contamination happens and how to assess risk on your farm. This workshop also helps prepare fresh produce growers to implement and document GAPs on their farms. Growers who sell wholesale may be asked by their buyers to provided evidence of GAP training. Participants will be issued a training certificate. This workshop will be presented by Penn State Extension educators, Lee Stivers, Robert Pollock and Thomas Ford. Topics covered in this daylong workshop include: 1) Produce Food Safety – Introduction; 2) Irrigation and Wash Water; 3) Risks from Animals and Manure; 4) Harvester and Handler Health and Hygiene; 5) Harvest and Post-Harvest; 6) Traceability and Recall Programs

Getting Started in Vegetable Production
(fee - $35 – lunch on your own)
The workshop is for beginning growers or growers contemplating getting into vegetable production. The range of topics covers many issues that new growers need to consider before planting the first crop. The presenters bring a wealth of knowledge and experience to the workshop. There is plenty of time allotted for questions for the speakers after their presentations so as to get your questions answered.

9:00  Welcome
Dr. William Lamont, Penn State Univ.
9:15  Things You Need to Consider Before Setting the First Transplant
Robert Hochmuth, Univ. of Florida
10:00  What About Soil Fertility
Dr. Michael Orzolek, Retired, Penn State Univ.
10:45  Vegetable Diseases - What You Need to Know
Dr. Andrew Wyenandt, Rutgers Univ.
11:30  Insect Pests of Vegetables - What You Need to Know
Dr. Thomas Kuhar, Virginia Tech Univ.
12:00  Lunch - On Your Own
1:00  Introduction to Drip Irrigation
William Wolfram, Toro Ag Products
1:45  Things You Should Know About Food Safety in Vegetable Production
Dr. Wesley Kline, Rutgers Univ.
2:30  Plastic Mulches, Drip Irrigation, Row Covers and High Tunnels
Dr. William Lamont, Penn State Univ.
3:15  Proper Refrigeration for the Storage of Vegetables
Michael Mager, Arctic Refrigeration Company
4:00  Weed Control in Vegetable Crops-What You Need to Know
Dwight Lingenfelter, Penn State Univ.

Equipping a New Generation of Specialty Crop Growers - Entrepreneurship, Team-Building, Innovation, Market Diversification
(fee – $65 includes lunch)
10:30 a.m. – 4:00 p.m.
How do I become a better….leader, communicator, entrepreneur, innovator? Whether you are just starting out as a young farmer or have some years of experience under your belt, expand your skill set and gain practical knowledge! Rich Stup with AgChoice Farm Credit will address workforce optimization while Penn State Extension educators Lynn Kime, Winifred McGee and Mark Gagnon will shed light on entrepreneurship and the importance of focusing on the future of your business. Young grower entrepreneurs will share their visions and insights from real world experiences.

Creating Outstanding Gift Baskets – (fee $65)
1:30 to 5:00 p.m.
This workshop will cover gift basket design theory, utilizing appropriate materials, and exceeding customer expectations. Our featured teachers for this outstanding workshop are Tom & Pam Newell, “Gift Basket Pioneers.” The Newell’s own and operate Gift Basket School which is the premiere industry supplier of Gift Basket Products, Promotional Products, Educational Classes, E-books, Seminars, Classes, Design Information & Techniques, Industry Newsletters, How to Information,
Latest Trends and much, much more. Tom & Pam have over 30 years’ experience in the Gift Basket industry, are internationally recognized speakers and serve as consultants in innovation and marketing. For this half-day workshop we will be learning from the best, exploring samples of baskets, as well as individually practicing the construction of a unique gift basket we will take home.

Employee Etiquette – (fee - $25)
1:30 to 4:30 p.m.
Recruiting and managing employees can be stressful. This workshop will address legal, logistical, and practical employers face as they seek to maximize the value of their workforce. Kimberly A. Nash, Director of Human Resource Services at Brown & Brown Insurance | Alpha Benefits Division, will discuss “Legal Issues Around Having Employees”. She will cover what you may legally say in a help-wanted advertisement, how to conduct an effective interview, questions you cannot ask in an interview, how to hire and fire employees and if time allows OSHA/Safe Work Place and Insurance concerns. Issues specific to agricultural employees will be included. Tad Kunz, Orchard/Farm Market Manager at Masonic Village Farm Market will cover “Writing Employee Policies and an Employee Manual” with specific reference to agricultural employees. The workshop will conclude with a round table discussion with speakers and attendees.

Getting Started with Raspberries and Blackberries –
(fee – to be announced)
9:00 a.m. to 12:00 noon
This workshop sponsored by the North American Raspberry and Blackberry Association (NARBA) will feature Dr. Marvin Pritts and Cathy Heidenreich from Cornell Univ. They will be covering the basics of getting started in bramble production.

Advanced Topics in Raspberry and Blackberry Production – (fee - to be announced – includes lunch)
9:00 a.m. to 1:30 p.m.
This workshop sponsored by the North American Raspberry and Blackberry Association (NARBA) will cover insecticides for bramble crops, current Spotted Winged Drosophila research, revitalizing an aging bramble planting and real-life production experiences of several growers. It will conclude with a luncheon and annual meeting of NARBA.

Raspberry and Blackberry Production
(fee – to be announced)
This workshop sponsored by the North American Raspberry and Blackberry Association (NARBA) will be a continuation of the bramble morning sessions. It will include a grower spotlighting his operation plus experts discussing blackberry post-harvest issues, food safety and GAPs for brambles, and how to capitalize on the health benefits of brambles.
### Keynote - Nigerian and Trinidad Rooms

10:40  **Changes in Penn State Extension**  
Dr. Dennis Calvin, Penn State Univ.

10:55  **Mid-Atlantic Legislative Affairs Update**  
United Fresh Produce Association

11:05  **Keynote Presentation – Performance in a Rapidly Changing Environment**  
Steven Wiley, Lincoln Leadership Institute  
(sponsored by DuPont)

### NARBA Tour  – (fee – to be announced)
This bus tour of nearby points of interest sponsored by the North American Raspberry and Blackberry Association (NARBA) tentatively will include visits to a high tunnel blackberry operation, a blackberry and strawberry farm, a soil and tissue testing laboratory (Agri-Analysis Labs), and an Amish farm.

**Tuesday Afternoon, January 28, 2014**

#### Wholesale Marketing  - Crystal Room
Topics to be Announced

#### Pumpkins  – Trinidad Room  
**Sponsored by American Vegetable Grower Magazine**

1:30  **Meadowbrooke Gourds: Turning a Raw Product Into a Handcrafted Gem**  
Darren Hartstock, Meadowbrook Gourds

2:00  **“Pesticides and Pollinators”**  
Lee Stivers, Penn State Extension

2:30  **Cucumber Beetle and Squash Bug Phenology**  
Dr. Shelby Fleischer, Penn State Univ.

3:15  **The New and the Old: Yellow Vine Decline and Update on the Mildews**  
Dr. Beth Gugino, Penn State Univ.,

#### Organic Vegetables  – Empire Room AB

1:30  **Managing Brown Marmorated Stink Bug Organically**  
Gladis Zinati, Rodale Institute

2:00  **Efficient Intercropping for Biological Control of Aphids in Organic Lettuce**  
Eric Brennan, USDA-ARS

2:30  **Potting Mixes and Fertilizers for Organic Vegetable and Herb Transplant Production**  
Stephanie Beeks, Cornell Univ.

Guihua Chen, Univ. of Maryland

4:00  **Yield and Composition of Grafted and Ungrafted Tomatoes Grown Using Different Irrigation Regimes in Organic High Tunnels**  
Matthew D. Kleinhenz, Ohio State Univ.

### Greenhouse Ornamentals  – Empire Room CD

1:30  **“Hard to Resist” Understanding Issues Associated with Resistance in Insect Populations**  
Dr Raymond Cloyd, Kansas State Univ.

2:30  **Fertilizing Petunias and Calibrachoa**  
Krystal Snyder, J.R. Peters Company

**3:15  Penn State Trial Gardens Report 2013**  
Dr. Robert Berghage, Penn State Univ.

**4:00  “Using Biological Fungicides in the Greenhouse”**  
Steven Bogash, Penn State Extension

### Greenhouse Vegetables  - Wild Rose Room

1:30  **Hydroponic Lettuce Production**  
Dr. A.J. Both, Rutgers Univ.

2:00  **“Controlling Insect Pests in Greenhouse Vegetable Production”**  
Dr. Margaret Skinner, Univ. of Vermont

2:30  **Trouble-Shooting Greenhouse Vegetable Problems**  
Dr. Richard Snyder, Mississippi State Univ.

3:15  **Nutritional Disorders in Greenhouse Vegetables**  
Dr. Joseph Kemble, Auburn Univ.

4:00  **“Greenhouse Vegetable Diseases and Control Measures”**  
Dr. Kathryne Everts, Univ. of Maryland

### New Equipment  – Magnolia Room AB

1:30  **Our New Biomass Boiler for Greenhouse Heating**  
Thomas Childs, Twin Springs Farm

2:00  **Multi-Crop Picking Assistant**  
Steve Zook, Crop Care/Paul Zimmerman

3:15  **Solar Golf Cart, Electric Cultivator, Roller Crimper and More Equipment from the Dickinson College Farm**  
Matthew Steiman, Dickinson College Farm

4:00  **To Be Announced**

### Labor/Farm Management  – Magnolia Room CD

1:30  **Farm Succession Law Issues**  
Gary Heim, Persun & Heim P.C.  and Jeffrey Ouellet, Hartman, Underhill & Brubaker LLP

3:15  **Farm Succession Law Issues**  
Gary Heim, Persun & Heim P.C.  and Jeffrey Ouellet, Hartman, Underhill & Brubaker LLP

### Tree Fruit  - Nigerian Room
**Sponsored by American Fruit Grower Magazine**

1:30  **Managing Wildlife in Orchards**  
Kyle Van Why, USDA-APHIS

2:00  **“Fruit Production and Pest Management in the Western US - Progress and Needs”**  
Rachel Elkins, Univ. of California Extension

2:45  **“Bloom Thinning of Apples in the Mid-Atlantic Region”**  
Dr. Gregory Peck, Virginia Tech.

3:30  **“How to Conserve Biological Control Agents with the Use of Selective Insecticides”**  
Dr. David Biddinger, Penn State Univ.

4:15  **SHAP Business Meeting**

**Tuesday Evening, January 28, 2014**

#### Social

6:00  **Fruit and Vegetable Grower Reception**  
Trinidad and Nigerian Rooms (ticket required)

7:00  **Fruit and Vegetable Growers Banquet**  
Trinidad and Nigerian Rooms (ticket required)  
– buffet dinner, recognitions and awards

*continued on page 22*
Wednesday Morning, January 29, 2014

Marketing 101
9:00  Creating Good Displays
Brian Moyer and Carla Snyder
Penn State Extension

9:30  Making Effective Signs
Brian Moyer and Carla Snyder
Penn State Extension

10:15 Market Design and Layout
Caleb Torrice, Tabora Farm & Orchard

Raspberry/Blackberries - Wild Rose Room
9:00  Grower Showcase: Kuhn Orchards
Sidney Kuhn and Anthony Herring, Kuhn Orchards

10:15 Raspberry Varieties: How We Determine What Works (grower panel)
Nate Nourse, Nourse Farms and others

11:00 What’s New with Blackberry Varieties
Reza Rafie, Virginia State Univ. and John Clark, Univ. of Arkansas

Tomatoes – Magnolia Room BCD
Sponsored by American Vegetable Grower Magazine

9:00  To Be Announced
Dr. Joseph Kemble, Auburn Univ.

9:30  Variety Update on Breeding Program
Dr. Majid Foolad Penn State Univ.

10:15 Going Beyond N, P & K; Solving other Nutrient Issues
Steven Bogash, Penn State Extension

11:00 *Integrated Management of Late Blight on Tomato
Dr. Beth Gugino - Penn State Univ.

11:30 PVGA Annual Meeting – Empire Room AB

General Vegetables – Empire Room AB

9:00  Effective Use of Cover Crops
Steve Groff, Cedar Meadow Farms

9:30  *Controlling Weeds between Raised Beds with Plastic Mulch
Dwight Lingenfelter, Penn State Univ.

10:15 Retractable Roof Production Systems
Benjamin Martin, Cravo Industries

11:00 ***Fumigation Options for Vegetable Growers
Dr. Chad Hutchinson, TriEst Ag Group

11:30 PVGA Annual Meeting – Empire Room AB

Potatoes – Empire Room CD

9:00  Observations and Update from Pennsylvania Coo Operative Potato Growers
Robert Leiby, David Slagle and Roger Springer, Penn. Co-Operative Potato Growers

9:30  *Diseases of Potatoes and Their Control
Dr. Beth Gugino, Penn State Univ.

10:15 The Colorado Potato Cultivar Development Program
Dr. David Holm, Colorado State Univ.

11:00 *Insects Pests of Potatoes and Their Control
Dr. Thomas Kuhar, Virginia Tech. Univ.

Wednesday Afternoon, January 29, 2014

Fun on the Farm: Agritainment
1:30  Going With the Flow: Helping Customers on Having a Good Time via Signage, Pricing, Farm Orientation
Russell Holmberg, Holmberg Orchards, CT

2:00 Sharing Our Experiences - A Grower Panel
(To Be Announced)

2:30 Pickfest: Bringing Music and Arts to the Orchard
Steve Frecon and Josh Smith, Frecon Orchards

3:15 Pricing Pick Your Own and Charging Admission
Kurt Alstede, Alstede Farms

4:00 Social Media Update ‘Timing is Everything: Using Social Media to Let Customers Know What is Happening On the Farm
Dr. Kathleen Kelly, Penn State Extension

MAFVC PROGRAMS continued from page 21

Tree Fruit - Nigerian Room
Sponsored by American Fruit Grower Magazine

9:00  Summer Pruning Peaches and Apples
Dr. Richard Marini, Penn State Univ.

9:45 *Brown Marmorated Stink Bug – What’s Next?
Dr. Tracy Leskey, USDA-ARS,
Dr. Gregory Krawczyk, Penn State Univ.,
Dr. Christopher Bergh, Virginia Tech

10:45 **Why Very Little of the Chemicals You Spray Get Into the Plant and What You Might Do About It
Dr. Steven J. McArtney, North Carolina State Univ.

11:15 Securing the Future of the Fruit Industry through Successful Farm Transitions
Moderator: Russell Redding, Delaware Valley College; Panel: Sidney and David Kuhn,
Kuhn Orchards, Justin and Edward Weaver, Weaver’s Orchard, Benjamin and David Wenk,
Three Springs Fruit Farm

Spanish - Magnolia Room A

9:00 Mesa Redonda: Producción de Frutas y Verduras
(Fruit and Vegetable Round Table)
Tianna Dupont, Penn State Extension

10:00 Mejor Manejo de Frutas y Verduras para Buen Éxito Post Cosecha
(Meeting the Postharvest Needs of Fruits and Vegetables from Field to Market)
Lee Stivers, Penn State Extension

10:45 *Desarrollo de Resistencia a Productos Químicos en Patógenos de Frutales
(Development of Resistance to Chemicals in Fruit Pathogens)
Dr. Maria del Mar Jimenez-Gasco
Penn State University

11:30 *Hacer Artrópodos Beneficiosos Parte de un Programa de MIP en Huertos de Árboles Frutales
(Making Beneficial Arthropods a Part of an Orchard IPM Program)
Armando Rosario-Lebron and Dr. Cerruti Hooks,
University of Maryland Extension

continued on page 23
**Raspberry/Blackberries – Wild Rose Room**  
1:30 **Black Raspberries: New Interest in an Old Crop**  
Bryan Butler, Univ. of Maryland; Kathlene Demchak, Penn State Univ.  
2:00 **‘Niwot’ Double-Cropping Black Raspberry**  
Peter Tallman, independent raspberry breeder  
2:15 **SWD and Other Fruit-Infesting Larvae**  
Hannah Burrack, North Carolina State Univ.  
3:15 **Getting the Most out of SWD Control Measures**  
Cesar Rodriguez-Saona, Rutgers Univ.  
4:00 **“There are Worms in My Fruit Salad!”: Customer Relations in the Face of SWD**  
John Berry, Penn State Extension  

**GMOs – Magnolia Room BCD**  
1:30 **Modern Plant Breeding: What is a GMO**  
Surinder Chopra, Penn State  
2:00 **Controlling Insect Damage and Disease Transmission with GMOs**  
Shelby Fleisher, Penn State  
2:30 **Herbicide Tolerant Crops, Resistant Weeds, and Herbicide Drift**  
Franklin Egan, USDA-ARS  
3:15 **Busting the Myths: The Truth about Genetically Engineered Food**  
Geogory Jaffe, Biotechnology Project, Center for Science in the Public Interest  
4:00 **Panel Discussion** - with session speakers, Kenneth Martin, Furmano Foods, moderator  

**General Vegetables – Empire Room AB**  
1:30 **Food Safety Aspects of Irrigation Water**  
Dr. Luke Laborde, Penn State Univ.  
2:00 **Fine Tuning Your Irrigation and Nutrient Program**  
Robert Hochmuth, Univ. of Florida  
2:30 **Drip Irrigation: Why Do I Need It?**  
Dr. William Lamont, Penn State Univ.  
3:15 **Electrical Signaling in Plants**  
Dr. Richard Woodward, Stoller USA  
4:00 **How Long Can I Keep Seeds?**  
Dr. Alan Taylor, Cornell Univ.  

**Potatoes – Empire Room CD**  
1:30 **New Potato Cultivars Improve Sustainability and Enhance Profits**  
Dr. David Holm, Colorado State Univ.  
2:00 **Potato Varieties for Pennsylvania**  
Robert Leiby, Pennsylvania Co-Operative Potato Growers  
2:30 **Chloropicrin Fumigation in Potato Production**  
Dr. Chad Hutchinson, TriEst Ag Group  
3:15 **An International Perspectives on Potatoes**  
Robert Leiby, Pennsylvania Co-Operative Potato Growers  
4:00 **Proper Design for Potato Storages**  
Michael Mager, Arctic Refrigeration  

**Wednesday Evening, January 30, 2014**  
5:00 **Reception for Pennsylvania Apple Growers**  
Cocoa Suites – hosted by the Pennsylvania Apple Marketing Board and International Paper  
7:00 **Ice Cream Social for All Convention Attendees**  
Great Lobby – hosted by the Pennsylvania Vegetable Growers Association – ice cream served until 8:00 p.m.  
7:00 **Musical Jam Session**  
bring your instrument and join in  
7:00 **Smoothie Competition**  
7:00 **Seed Heat Treatment Workshop**  

MAFVC PROGRAMS continued from page 22

**Peaches – Trinidad Room**  
1:30 **Effective IPM Programs for BMSB in Peach: Better and Less Spraying**  
Dr. Anne Nielsen, Rutgers Extension  
2:00 **Ernie Christ Lecture - Performance of Peach Training Systems in the Mid-Atlantic**  
Dr. James Schupp, Penn State Univ.  
3:00 **Pear Flesh Types: Some Curiosities Uncovered**  
Dr. John Clark, Univ. of Arkansas  
3:30 **Pear Variety Update**  
Jerry Frecon, Adams County Nursery  

**Tree Fruit - Nigerian Room**  
1:30 **Fungicide Resistance Management**  
Dr. Kari Peter – Penn State Univ., Dr. Norman Lalancette, Rutgers Univ., Dr. Keith Yoder – Virginia Tech.  
2:15 **Herbicide Resistance Weed Management Considerations for Orchards**  
Dwight Lingenfelter, Penn State Univ.  
3:00 **Pear Production in Western States: Status, Challenges and Trends**  
Rachel Elkins , Univ. of California Extension  
3:30 **US Apple and Pennsylvania Apple Marketing Board Updates**  
Julie Bancroft , PAMB, TBA, US Apple representative  

**Spanish - Magnolia Room A**  
1:45 **Guía de Campo para Desordenes, Plagas y Benéficos de Arboles Frutales**  
(Orchard Pest Field Guide)  
Héctor Núñez Contreras, Penn State Extension  
2:15 **Una Introducción a la Capacitación Empresarial Agropecuaria**  
(Introduction to Ag Business Skills and Entrepreneurship)  
Winifred McGee, Penn State Extension  
2:45 **Factores Claves del Úxito de los Líderes en las Empresas Agrícolas**  
(Key Factors of Leadership Success in the Agriculture Business)  
Miguel Saviroff, Penn State Extension  
3:30 **Control Operativo y Manejo Seguro de Tractores**  
(Pre-Operational Check Up and Safe Operation of a Tractor)  
Maria Gorgo-Gourovitch, Penn State Extension

continued on page 24
Thursday Morning, January 30, 2014

Food Trends: Marketing to What Are Your Customers Eating
9:00  2014 Food Trends, What Will YOUR Customers be Hungry for This Year?
Heather Mikulas, Penn State Extension
9:30  Essentials of Developing a Marketing Plan
Dr. Ferd Wirth, St. Joseph's Univ.
10:15  How to Differentiate and Position Your Product and Brand
Dr. Ferd Wirth, St. Joseph's Univ.
11:00  Overview of Marketing Options for Fruits and Vegetables
Dr. Ferd Wirth, St. Joseph's Univ.
11:30  Picking Your Packaging for Pricing - What Your Product is in Says a Lot to the Consumer
Heather Mikulas, Penn State Extension

Strawberries - Wild Rose Room
9:00  An Update on the National Strawberry Sustainability Initiative
Peter Nitzsche, Rutgers Univ.
9:30  *Rhizoctonia fragariae in Strawberry Black Root Rot: Friend or Foe?
Emily Lively, Penn State Univ.
10:15  Table Grape Developments from the Univ. of Arkansas
John Clark, Univ. of Arkansas
11:00  Food Safety Considerations for Strawberries and Other Berries
Luke LaBorde, Penn State Univ.

High Tunnels – Empire Room AB
9:00  What’s Happening in High Tunnels in West Virginia
Dr. Lewis Jett, Univ. of West Virginia
9:30  High Tunnel Lettuce Variety Trials
Dr. William Lamont, Penn State Univ.
10:15  Soil Health Considerations in a High Tunnel
Dr. Matthew Kleinhenz, Ohio State Univ.
11:00  *Biological Control of Aphids in High Tunnel Vegetable Production
Dr. Margaret Skinner, Univ. of Vermont
11:30  Pennsylvania High Tunnel Growers Network - A New Initiative
Adam Dellinger, Capital RC&D

Sweet Corn – Magnolia Room BCD
Sponsored by American Vegetable Grower Magazine
9:00  Two Years of Cultivar Evaluations
Elsa Sanchez, Penn State Univ.; Thomas Butzler, Lee Stivers, Timothy Elkner, Penn State Extension
9:30  Postharvest and Food Safety
Steven Sargent, Univ. of Florida
10:15  *Weeds: Controlling Annual Grasses, Resistant Species, and Palmer Amaranth
Dwight Lingelfelter, Penn State Univ.

Cut Flowers – Cocoa Suite 1
9:00  New Cut Flowers Varieties
Alicain Carlson, North Carolina State Univ.
9:30  *Biorational Insect and Arthropod Control in Cut Flowers
Thomas Ford, Penn State Extension
10:15  Maximizing Stem Length and PostHarvest Life in Cut Flowers
Alicain Carlson, North Carolina State Univ.
11:00  Peonies and Bulbs - New and Old
Juergen Steininger, Bulb Trading Company
11:30  Innovative Cut Flowers
Joan Mazat, Ball Seed Company

Soil Health – Empire Room CD
9:00  *Soil Food Web and Pest Management
Dr. Mary Barbercheck, Penn State Univ.
9:30  Reduced Tillage for Vegetable Production
Dr. Anu Rangarajan, Cornell Univ.
10:15  How to Read Soil and Foliar Nutrient Analysis Reports
Dr. Elsa Sanchez, Penn State Univ.
11:00  Utilizing Cover Crop Mixes in Vegetable Production Systems
Tianna DuPont, Penn State Extension
11:30  The Benefits of Compost and Mushroom Compost for Vegetable Production
Dr. John Pecchia, Penn State Univ.

Tree Fruit - Nigerian Room
Sponsored by American Fruit Grower Magazine
9:00  *Update on Bacterial Peach Diseases
Dr. Kari Peter, Penn State Univ.
9:30  Consumer Peach Purchasing Behavior and Preferences: Results from a Sensory Evaluation and Internet Survey
Dr. Kathleen Kelley and Rachel Primose, Penn State Univ.
10:00  National Peach Council Program Update
Kay Rentzel, NPC, Program Director
10:30  *Interpreting Leaf and Soil Analyses
Dr. Robert Grassweller, Rutgers Extension
11:00  *What Worm is Feeding on my Fruit?
Dean Polk, Rutgers Extension
11:30  Flower Bud Formation and the Biennial Bearing Puzzle in Apple
Dr. Steven J. McArtney, North Carolina State Univ.

Thursday Afternoon, January 30, 2014

Keeping Up with the Changes in Digital Marketing - Crystal Room
1:30  Marketing to the Mobile Consumer
Dr. Kathleen Kelley, Penn State Extension

continued on page 25
Beyond FaceBook
Rachel VanDuzer, VanDuzer Design

Digital Marketing at the Farm Level
To Be Announced

Hardware and Devices for Digital Marketing
Robert Goodling, Penn State Extension

Tricks of the Trade
Moderator, Shannon Dill, This session will be an open discussion to share suggestions and advice in using Digital Marketing for your farm business.

Blueberries - Wild Rose Room
1:00 Diagnosing Blueberry Problems
Dr. Gary Pavlis, Rutgers Univ.

What Are You Looking For In a Blueberry Variety? New Choices and Some Time - Tested Ones
Mark Ehlenfeldt, USDA-ARS

*Blueberry Disease Control
Dr. Peter Oudemans, Rutgers Univ.

*Integrated Management of Insect Pests in Blueberries
Dr. Cesar Rodriguez-Saona, Rutgers Univ.

*Monitoring and Insecticide Programs in Light of Spotted Wing Drosophila
Dean Polk, Rutgers Univ.

*Weed Control in Blueberries
Dr. Bradley Majek, Rutgers Univ.

Season Extension – Empire Room AB
1:30 Season Extension and High Tunnel Usage in Philadelphia
Ryan Witmer, Urban Tree Connection

Preparing and Installing Gothic-Framed, Outdoor Winter Ready Mid-Tunnels
Dr. Matthew Kleinhenz, Ohio State Univ.

Capturing Market Demand with Protected Culture
Robert Hochmuth, Univ. of Florida

Extending Vegetable Harvest and Sales Using Tunnels, Row Covers, and Winter Storage
Ruth Hazzard, Univ. of Massachusetts

Sweet Corn – Magnolia Room BCD
1:30 Experiences with Drip Irrigation on Sweet Corn
James Stahl, Harvest Lane Farm Market

Cover Cropping Systems for Sweet Corn
Sjoerd Willem Duiker, Penn State Univ.

To Be Announced

**Boom Sprayer Calibration
George Hamilton, Univ. of New Hampshire

To Be Announced

Cole Crops – Cocoa Terrace
1:30 Food Safety in Cole Crop Microgreens
Dr. Luke Laborde, Penn State Univ.

Maximizing Yield Through Use of Proper Irrigation Management
Dr. William Lamont, Penn State Univ.

Management of Common Insect Pests in Cole Crops
Joanne Whalen, Univ. of Delaware

* Cole Crop Disease Management 101: Downy Mildew and Black Rot
Dr. Beth Gugino, Penn State Univ.

Value-Added Products – Cocoa Suite 1
1:30 Food and Culinary Trends that Value-Added Producers Should Capitalize On
Thomas G. Ford, Penn State Extension

Employing a Co-Packer to Create Value-added Farm Products
Nick Stello- Stello Foods

FSMA and Its Impact on Value Added Farm Processors
Dr. Larry Grunden, Penn State Extension

Packaging Products to Increase Consumer Appeal
Ginger Myers, Univ. of Maryland Extension

Peppers/Eggplant – Empire Room CD
1:30 Specialty Peppers
James Weaver, Weaver Farms

Eggplant Production & Varieties
Dr. Wesley Kline, Rutgers Univ.

Update on Insecticides for Pepper/Eggplant and Pest Problems in 2013
Dr. Thomas Kuhar, Virginia Tech

Regulatory Issues for the Horticulture Industries - Nigerian Room
1:00 The Current Status of Immigration and Labor Reform
Diane Kurrle, US Apple Association

Food Safety Regulations
Mark Seetin, US Apple Association; Dr. Lydia Johnson, PA Dept of Agriculture

Patient Protection and Affordable Care Act - An Overview of Effects on Small Business
Dr. Louis DeEugenio Jr., FACP

**Pesticide Recordkeeping: Pencil and PC (Mac if you must) Formats
Dr. Kerry H. Richards, Penn State Univ.

Earn Better Yields On Your Valuable Assets
Dr. Thomas Kuhar, Virginia Tech

Non-Irrigated Method
Specialists in Drip Irrigation since 1973!

Drip Irrigation Method

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Biglerville, PA 800-672-4700
Fax 616-429-6669
Fax 717-337-1785

e-mail: info@trickleez.com
Check Us Out On The Web At www.trickleez.com
8th 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 28th 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 2015 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 2014 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.

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Mid-Atlantic Cider Contest 2014 Entry Form

Name/Farm: ________________________________
Address: _____________________________________________________________
Phone: ________________________________ Email: __________________________
Mixture of Varieties: __________________________________________ Entry Number: ________
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 chose, the more likely we’ll be able to provide. With availabilities already tight for this, and next year, help cut down on worries. Place a call and get us to work.

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.

Improved Golden Delicious
(Gibson cv)
The most russet resistant Golden clone commercially available. Finish is smoother to the touch in comparison with a regular Golden. Recommended for russet prone areas.

Granny Smith
A late-maturing large green apple. Firm, bruise resistant, tart flavor and of excellent quality. Tree is vigorous, early bearing and annually productive.

Local Representative:
Gary Kauffman, Bendersville, PA (717) 677-6931
*Patent information available upon request.

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tree@c-onursery.com  www.c-onursery.com
Special Session for Spanish-Speaking Employees at the Mid-Atlantic Fruit and Vegetable Convention

Técnicas de Producción de Frutas y Hortalizas

Wednesday, January 29, 2014
Hershey Lodge and Convention Center—Hershey, PA

9:00 Mesa Redonda: Producción de Frutas y Verduras
(Fruit and Vegetable Round Table)

10:00 Mejor Manejo de Frutas y Verduras para Buen Éxito Post Cosecha
(Meeting the Postharvest Needs of Fruits and Vegetables from Field to Market)

*10:45 Desarrollo de Resistencia a Productos Químicos en Patógenos de Frutales
(Development of Resistance to Chemicals in Fruit Pathogens)

*11:30 Hacer Artrópodos Beneficiosos Parte de un Programa de MIP en Huertos de Árboles Frutales
(Making Beneficial Arthropods a Part of an Orchard IPM Program)

2:15 Una Introducción a la Capacitación Empresarial Agropecuaria
(Introduction to Ag Business Skills and Entrepreneurship)

2:45 Factores Claves del Éxito de los Líderes en las Empresas Agrícolas
(Key Factors of Leadership Success in the Agriculture Business)

3:30 Control Operativo y Manejo Seguro de Tractores
(Pre-Operational Check Up and Safe Operation of a Tractor)

*Category Credit (Credits offered pending approval from PA Dept of Agriculture) For more information contact/Catherine Lara, cyL1@psu.edu o 717-334-6271 ext. 315

Registration Form for Técnicas de Producción
Pre-Registration Deadline/Fecha Límite de Inscripción — January 17, 2014

Name/Nombre__________________________________Employer/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: 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.

Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.
Penn State se suscribe a la acción afirmativa, la igualdad de oportunidad y a la diversidad de sus empleados.
You are invited to the
Young Grower Alliance Luncheon
to be held at the
Mid-Atlantic Fruit and Vegetable Convention

Tuesday, January 28, 2014
12:00 pm
Hershey Lodge and Convention Center
Hershey, PA

Please RSVP no later than January 21, 2014 to:
Catherine Lara
cyl1@psu.edu
717-334-6271 ext. 315

Special Thanks to
Helena Chemical Co.
for sponsoring this event!
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.

When

Wednesday, January 29, 2014
5 PM - 6:30 PM

Where

Mid-Atlantic Fruit & Vegetable Convention
Hershey Lodge & Convention Center
Cocoa Suites 3, 4 & 5

Heavy Appetizers & Cash Bar

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[Pennsylvania Apples]
Call 800-572-1553 for your 2014 Planting Needs!

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*Visit our Website for Complete Variety, Cultivar and Plant Patent Information!
ACCEPTING NOMINATIONS FOR THE 2013 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 2013 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:
Ed Weaver, Chairman
40 Fruit Lane
Morgantown, PA 19543
ed@weaversorchard.com

Other members of the Committee are:
Daniel Boyer  Brad Hollabaugh
Dwight Mickey  Kenneth Guise, Jr.
David Wenk

Deadline to submit nominations: by January 5, 2014

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
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8ft. & 10ft. lengths
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- No Breakage with heavy load of fruit or wind.
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Special thanks to all who have responded so far to this campaign!

What is the Value of Controlling a New Invasive Pest?
Regular Crops of High Quality Fruit?
Improved Disease Resistance Management?
Labor Efficient Technologies?

These are questions that we need to consider as we prepare to shape our industry for the next generation!

This is how you can make a difference!

Recognizing the value of specialty crop research and extension work and the contributions to my production and business practices, and also recognizing the need for a sustainable approach to provide industry support to address critical and emerging threats, we/our company makes this commitment to support university research and extension programs through a voluntary annual contribution. We/I also recognize that these funds will be administered by the State Horticultural Association of Pennsylvania, Inc. (SHAP). Estimated annual pledge amount:

- Platinum level, $2,500+
- Gold level, $1,000-2,499
- Silver level, $500-999
- Bronze level, $250-499
- Sustaining level, $100

Signature__________________________________________

Please enclose contribution, made out to SHAP, or check here to receive an invoice in December, 2013. □

Name: ____________________________ Company: ____________________________

Address: ______________________________ State_____ Zip__________

Email: ____________________________ Phone: ____________________________

Contributors will be acknowledged in PA Fruit News. If you wish to remain anonymous, please check here: □

If you currently are not a member of SHAP, please check here for a free trial membership with your contribution of $100 or higher: □

Please mail this form to: State Horticultural Association of PA, 480 Mountain Rd, Orrtanna, PA 17353.

The SHAP Board of Directors approved a resolution to increase university research and extension support by $100,000 per year by 2015. We are encouraged by a fresh market industry commitment to double their contribution from $.01 to $.02/packed box but this will not be adequate to attain our goal. Additional sources will be necessary, and if you do not already provide voluntary support, we encourage you to consider making a pledge. Special thanks to all who have responded so far to this campaign! We welcome any suggestions you may have for projects—please contact any member of the SHAP research or extension committee.
**2014 MEMBERSHIP DUES ARE PAYABLE NOW!**

### 2014 MEMBERSHIP DUES - Part I

**Membership Categories:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Membership Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Fruit Grower Membership (Owner or Operator)</td>
<td></td>
<td>$75.00</td>
</tr>
<tr>
<td>*Associate Membership (Employee or Family Members of Fruit Grower Membership)</td>
<td></td>
<td>$40.00</td>
</tr>
<tr>
<td>B. Commercial Membership (Business or Firm related to the Industry)</td>
<td></td>
<td>$75.00</td>
</tr>
<tr>
<td>*Associate Membership (Employees of Commercial Membership)</td>
<td></td>
<td>$40.00</td>
</tr>
<tr>
<td>C. Professional/Subscription Membership (Ext. &amp; Assoc. Personnel, Consultants)</td>
<td></td>
<td>$40.00</td>
</tr>
<tr>
<td>D. Student Membership (High School and College Students)</td>
<td></td>
<td>$20.00</td>
</tr>
</tbody>
</table>

*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!

- [ ] Endowment Fund
- [ ] Association

<table>
<thead>
<tr>
<th>Amount of Donation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________</td>
</tr>
</tbody>
</table>

**TOTAL $**

Membership Name ____________________________________________________________

Farm or Business Name ______________________________________________________________________________________

Address _________________________________ City/State/Zip ________________________________

Telephone Number _______________________________ FAX Number ______________________________

E-Mail Address _______________________________________________________________________________________

---

**2014 MID-ATLANTIC FRUIT AND VEGETABLE CONVENTION**

155th 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 28 – 30, 2014

**REGISTRATION FEES – PART II**

**Member’s Registration:**

- Advanced Registration (postmarked by January 17, 2014)
  - 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 = __________

**FRUIT and VEGETABLE GROWERS DINNER**

**GROWER RECEPTION - DOOR PRIZES - AWARDS**

Tuesday, January 28, 2014 - 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

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Fruit Trees Available

* Apple*
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* Pear*
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  - 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*

* Vynyllye*
  - 100' meters or 1000' rolls

* Stokes*
  - Aluminum straight and step ladders

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