

# NEWS

for the commercial vegetable, potato and berry grower

October 2014 / Volume 37 Number 10

## PVGA Membership Increases to 976

In 2011 PVGA reached its long-held goal of having 1,000 members. Membership reached 1,004 to be precise. In 2012, membership dropped to 986 and in 2013 it dropped again to 961. While the slight increase to 976 in 2014 is a step in the right direction, the Census of Agriculture indicates there are over 3,300 farms in Pennsylvania that grow an acre or more of vegetables. Thus, PVGA has a large potential membership as yet untapped.

For the past several years, the Directors have set a goal of retaining 90% of the previous year's members and recruiting 15% new members. Unfortunately for 2014 only 81% of last year's members rejoined although 20% of the members are new members. Membership has increased over the previous year in five of the last ten years, increasing 5% in that time period from 929 in 2005.

PVGA is completing its 88th year as an association. The Directors are fully aware that membership goals can only be met and maintained by providing an adequate return to members for their dues investment.

As a result of the Vegetable Industry Strategic Planning Initiative which the Association and the Pennsylvania Vegetable Marketing and Research Program (PVMRP) undertook last winter, the Association and PVMRP applied for and received a Specialty Crop Block Grant from the Department of Agriculture. The grant will allow PVGA and PVMRP to use \$30,000 to hire Robert Amsterdam on a consulting basis to further develop the both groups' abilities to better serve the growers of Pennsylvania. Further details about the project will be published in an upcoming newsletter.

Meanwhile, however, the Association strove continue to provide a good return on members' dues investment in 2014 with the following ongoing activities and member services:

- PVGA helped sponsor the 2014 Mid-Atlantic Fruit and Vegetable Convention – the premier grower meeting of its kind on the east coast.
- PVGA published the *Pennsylvania Vegetable Growers News*, its own 24-plus-page monthly newsletter with pertinent information for the Pennsylvania vegetable, potato, berry or greenhouse vegetable grower.
- PVGA provided \$66,200 for vegetable and small fruit research in 2014 - bringing the Association's total for research contributions to \$780,264 over the last 26 years.
- PVGA represents the interests of the vegetable, potato and small fruit industries on legislative and regulatory issues through letters and meetings with public officials.
- PVGA cooperated with the Department of Agriculture and the Vegetable Marketing and Research Program to represent the Pennsylvania vegetable industry at various promotion events.
- PVGA co-sponsored several regional twilight meetings or field days this summer and fall as grower educational opportunities plus a bus tour of Maryland farm markets.

- PVGA holds the trademark for the Pennsylvania Simply Sweet Onion to help develop a new profitable, branded crop for Pennsylvania growers.
- PVGA is especially proud of the volunteer effort put forth each year by PVGA members to run the Association's Food Booths at the Farm Show and Ag Progress Days. These efforts have enabled PVGA to donate over three-quarters of a million dollars towards research and promotion activities over the last 26 years. The Board of Directors has essentially devoted the profits from the Food Booths to fund the Association's research, promotion and donation budgets rather than any of the Association's general operations.

In 2014 PVGA members again received free subscriptions to the *American Vegetable Grower* magazine and the *Vegetable Growers News*.

Dues invoices for 2015 will be mailed in late November. We hope all members will renew your memberships for 2015 and that you will urge a neighboring grower to join as well. We want to see PVGA membership continue to increase. Increased membership allows the Association to better serve the vegetable, potato and berry growers of Pennsylvania – and that is our end purpose.

## 2015 Mid-Atlantic Convention Opens January 27

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

The day before the main Convention opens, the Young Growers Alliance will sponsor a workshop entitled Ag Literacy for Growers which will focus on communicating with consumers and the media. There will also be a bus tour to several south central Pennsylvania farm markets that day.

Other pre-convention workshops on January 26 include New Organic Growers School, Irrigation Water Toolbox, Good Agricultural Practices Training, and Basic Training for a PA Pesticide Applicator License.

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2015 Keynote  
Speaker  
Russell Redding

## NEWS



**Pennsylvania  
Vegetable Growers  
Association**

*An association of  
commercial vegetable,  
potato and berry growers.*

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**William Troxell**  
Richfield

## 2015 Mid-Atlantic Convention... (continued from page 1)

The Mid-Atlantic Convention has been jointly sponsored by the State Horticultural Association of Pennsylvania, the Pennsylvania Vegetable Growers Association, the Maryland State Horticultural Society and the New Jersey State Horticultural Society for the past 37 years. Beginning last year, the Virginia State Horticultural Society is also cooperating in organizing the meetings. The Pennsylvania State University, University of Maryland and Rutgers University Cooperative Extensions 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.

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

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

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

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

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

The ninth annual Mid-Atlantic Cider Contest will be conducted during the Convention to determine the best tasting cider produced in the region. On January 27, fruit and vegetable growers will gather for the annual Fruit and Vegetable Growers Banquet which will include awards and recognitions. On January 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. Detailed information on the program as well as registration forms will be published in the November newsletter. Registration with PVGA allows one to attend any of the sessions although there are additional charges for workshops and meals. Growers registering with PVGA will receive the Proceedings book as part of their registration. For further information, go to [www.mafvc.org](http://www.mafvc.org) or call 717-694-3596.

## Needed: Nominations for PVGA Directors

The terms of six members of the PVGA Board of Directors expire at the Annual Meeting scheduled for Wednesday, January 28, 2015, at 11:30 a.m. at the Mid-Atlantic Fruit and Vegetable Convention in Hershey. All except Hilary Schramm and Thomas Styer are eligible for re-election under the 18-year term limits set by the Board. The Directors whose terms expire are as follows:

Brian Campbell – Berwick – first elected 2007	Hilary Schramm – Jeannette – first elected 1997
Curtis Kaelin – Wexford – first elected 2006	Thomas Strzelecki – Wapwalopen – first elected 2012
Ernest Mast – Morgantown – first elected 2009	Thomas Styer – Muncy – first elected 1995

Like last year, the election will be conducted by a mail-in ballot that will be mailed to all members with the dues renewal notices in late-November/early-December. The Leadership and Recognition Committee will be seeking additional nominees to be included on the ballot. Members who want to nominate someone for Director, or who would like to be considered for nomination themselves, should contact the PVGA office at 717-694-3596 or [pvga@pvga.org](mailto:pvga@pvga.org) or Brian Campbell, who as Past President serves as chair of the Committee, at [briancampbellfarms@verizon.net](mailto:briancampbellfarms@verizon.net).

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phone and fax - 717-694-3596, email - [pvga@pvga.org](mailto:pvga@pvga.org) website - [www.pvga.org](http://www.pvga.org)*

*Our Mission:*

*The Pennsylvania Vegetable Growers Association serves Pennsylvania's commercial vegetable, potato and berry growers through education, research, advocacy and promotion.*

*Our Vision:*

*The Pennsylvania Vegetable Growers Association will be the driving force in ensuring the future viability of the commercial vegetable, potato and berry industries in Pennsylvania.*

*Inquiries about membership, this publication or advertising rates should be directed to William Troxell, Executive Secretary, at the above addresses.*

## Be a Keystone Member for 2015 and Invest in PVGA's Future

In 1994, the Association established a new membership class, the Keystone membership, and an endowment-type fund, the Keystone Fund. PVGA members who wish to support the vegetable, potato and berry industries in a special way pay dues above the regular rate, with the dues above the regular rate being placed in the Keystone Fund. The current balance in the Keystone Fund is over \$116,400,000 which is invested in money market accounts, a government bond mutual fund and an index stock mutual fund.

The Board of Directors has approved the following uses for the annual interest earned by the Keystone Fund:

- An annual \$1,000 student scholarship that will be awarded according to criteria set by a special committee. The committee has awarded a total of six scholarships to date.

- Half of any remaining interest will be given to the Penn State Plant Pathology Department as a general research grant in support of the vegetable pathologist's ongoing research work.

- The other half of any remaining interest will be given to the Penn State Entomology Department as a general research grant in support of the vegetable entomologist's ongoing research work.

The special research grants from the Keystone Fund were designated for the Plant Pathology and Entomology Departments at this point in time rather than the Horticulture Department because the Association for five years was giving \$10,000 annually to partially support a vegetable research technician in the Horticulture Department. This support comes from the Association's General Fund. As interest rates have declined over the past several years, these research grants have grown smaller unfortunately.

Suggested Keystone dues are based on a member's gross income from vegetables, potatoes or berries instead of being a flat rate. However, any member who pays dues of \$75 or more is considered a Keystone member regardless of their gross income. The amount of Keystone dues paid by individual members is not published so as not to disclose their gross income. Keystone dues are added to the principal of the Keystone Fund, thus increasing the potential amount of interest available each year.

Keystone membership is open to all vegetable, potato and berry farm operations, processing firms and allied industry firms. Associate Keystone Members are additional family members or employees of Keystone Members. The following farms, firms and persons are Keystone or Associate Keystone Members for 2014:

Ridgeview Acres (Robert Ambrose) - *Stahlstown*  
 Amsterdam Produce Enterprises (Robert Amsterdam) - *Mechanicsburg*  
 Anchor Farms (Charles J Anchor III) - *New Columbia*  
 Baronner Farms (Robert Baronner) - *Hollidaysburg*  
 Lady Moon Farms (Thomas Beddard) - *Chambersburg*  
 Triple B Farms (R.J. and William Beinlich) - *Monongahela*  
 Benshoff Farms of New Germany (James Benshoff) - *Summerhill*  
 Indian Orchards (Nancy Bernhardt) - *Media*  
 Bitler Farms (Timothy Bitler) - *Birdsboro*  
 William Bitler - *Bloomsburg*  
 Brown's Orchard and Farm Market (Stanley Brown) - *Loganville*  
 Clark Crest Farms (Ronald Clark) - *Quarryville*  
 New Morning Farm (James Crawford) - *Hustontown*

Darling Farms & Greenhouse (Norman Darling) - *Dallas*  
 Dudas Farm (Roberta Dudas) - *Fairview*  
 Dymond's Farm Market (Christopher, Fred III, and Timothy Dymond) - *Dallas*  
 Godfrey Run Farm (Gary Faulkner) - *Lake City*  
 Windy Hill Farm (Marian Fifer) - *Bulger*  
 Douds Floyd Farm (Philip Doud Floyd) - *Aliquippa*  
 Pete's Produce Farm (J. Peter Flynn) - *West Chester*  
 Graceland Farm Market (Jonathan Grace) - *Grove City*  
 Brookdale Fruit Farm (Chip Hardy) - *Hollis, NH*  
 Harnish Farms (Bryan Harnish) - *Pequea*  
 SIW Vegetables (Harry Haskell) - *Chadds Ford*  
 Anton Hatfield-Nicholson - *Mifflintown*  
 Haupt Produce (Wilford Haupt) - *Paxinos*  
 Ag Choice Farm Credit (Gary Heckman) - *Mechanicsburg*  
 Donna Helwig - *Catawissa*  
 B & R Farms (Barron Hetherington) - *Ringtown*  
 Hopkin's Farm (E. Harry Hopkins) - *Falls*  
 Indian Oven Farms (Edward C. Hopkins, Mark Hopkins) - *Falls*  
 Hunter Insurance Associated (Bill G Hunter) - *Carlisle*  
 Cedar Run Produce (John Hurst) - *East Earl*  
 Harvest Valley Farms (Arthur, David and Larry King, Krista Cole, Caleb Costanzo, Abby Merhaut) - *Valencia*  
 Peaceful Acres Farms (Clair King) - *Cochranville*  
 Conrad King - *Atglen*  
 Gerald R. King - *Cochranville*  
 Kreiders Market (J. Lloyd Krieder) - *Kirkwood*  
 Lippy Brothers Farms - *Hampstead*  
 Peaceful Road Farm LLC (Warren M. Martin, Jr.) - *Leola*  
 Harvest View Farm and Market (Kenneth Metrick) - *Butler*  
 First Fruits Farm (Daniel H. Millender) - *Upperco, MD*  
 Miller Plant Farm (David Miller) - *York*  
 Mock's Greenhouse (Paul Mock Sr.) - *Berkeley Springs, WV*  
 General Store Farm Market (David Moyer) - *Birdsboro*  
 Daniel's Farm Store (Justus Nolt) - *Leola*  
 Institute for Plant Based Nutrition (James & Dorothy Oswald) - *Bala Cynwyd*  
 Triple Springs Farm (Joseph Panzitta) - *Wilkes Barre*  
 Peters Produce (Dennis S. Peters) - *Red Lion*  
 Pumpkinhill Produce Farms (Harry N. Roinick, Jr.) - *Nescopeck*  
 Red Wagon Farm (Eric and Richard Ross) - *Columbia Station, OH*  
 Sample's Vegetable Farm (Steve Sample) - *Duncannon*  
 Dan Schantz Farm and Greenhouse (Daniel Schantz, Patrick Flanley) - *Zionsville*  
 Schramm's Farm and Orchard (Hilary Schramm, Jr.) - *Jeanette*  
 Green Barn Berry Farm (Robyn and Jarod Schreiber) - *Muncy*  
 Seminole Produce Distributors - *Sanford, FL*  
 Shenot Farms (Edward and Robert Shenot) - *Wexford*  
 David Sokoloski - *Beaver Falls*  
 William and Cheryl Troxell - *Richfield*  
 Van der Grinten Farms (Peter Van der Grinten) - *Guilford, CT*  
 Bryon Waggoner - *East Berlin*  
 Everris (Sharon Warschauer) - *Henryville*  
 The Greenest Fertilizer (Michael Westog) - *Elmer, NJ*

## NEWS

## National News Briefs

### United Fresh Honored for Leadership in School Salad Bars Program

The United Fresh Produce Association has earned the highest association industry honor, a 2014 ASAE Power of A Summit Award, for its pioneering initiative that provides salad bars to schools to increase children's access to healthful and flavorful fruits and vegetables. More than 1,000 association professionals and industry partners were on hand last night (October 1) as the American Society of Association Executives (ASAE) formally presented the 2014 Power of A Summit Awards at the 15th Annual Summit Awards Dinner at the National Building Museum in Washington, DC.

ASAE honored United Fresh for enriching the lives of more than two million students in 3,500 schools who are making healthier lunch choices thanks to their efforts. The program allows school food service directors to request salad bars to empower children to increase their fruit and vegetable consumption. Donors from the produce industry, allied businesses and foundations contribute funds to the program.

"Let's Move Salad Bars to Schools is a great example of the transformative impact associations have on society," said ASAE President and CEO John H. Graham IV, FASAE, CAE. "Congratulations to United for identifying a need and putting their resources to work in a way that benefits students and society at large."

The United Fresh Start Foundation has unified the produce industry, as well as helped others understand the changing landscape of school meal and snack programs. More than 250 produce companies, allied businesses and foundations support salad bars for schools. United Fresh members have also engaged local charities and community groups to support the program.

"We are proud of the advances we've made in child nutrition with the salad bar initiative, and we remain committed to continuing this progress in the years ahead," said Tom Stenzel, president & CEO of United Fresh. "None of this is possible without the generous support from United's members and the produce industry. This award is for all of them as well."

*From **Inside United Fresh**, United Fresh Produce Association, October 2, 2014.*

### EPA Extends Comment Period on Embattled Waters Rule Proposal

The Environmental Protection Agency (EPA) announced Monday that it is extending the comment period for its proposed "waters of the United States" rule, a controversial proposal that would give regulators greater powers. The proposal would extend the agency's jurisdiction to regulate smaller bodies of water, such as streams and rivers, that flow into larger water sources that are already protected. The extended comment period will end Nov. 14.

The EPA's Scientific Advisory Board is finishing work on a report on the connectivity of small bodies of water such as streams and wetlands, and says the extended time is to allow the public more time to comment on the results of the report once it is released.

Information about the proposed rule can be found at [www.epa.gov/uswaters](http://www.epa.gov/uswaters).

Submitting comments on the proposed rule, identified by Docket ID No. EPA-HQ-OW-2011-0880, can be done by one of the following methods:

Federal e-Rulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

Email: [ow-docket@epa.gov](mailto:ow-docket@epa.gov). Include EPA-HQ-OW-2011-0880 in the subject line of the message.

Mail: Send the original and three copies of comments to: Water Docket, Environmental Protection Agency, Mail Code 2822T, 1200 Pennsylvania Avenue NW, Washington, DC 20460, Attention: Docket ID No. EPA-HQ-OW-2011-0880.

*From **Inside United Fresh**, United Fresh Produce Association, October 9, 2014.*

### Farm Bureau Makes The Case to "Ditch the Rule"

Pennsylvania Farm Bureau has worked hard to make sure the federal government knows that harm that could come from its misguided "waters of the U.S." rule. Recently, PFB sent a stack of post cards—towering more than two feet in height—to the U.S. Environmental Protection Agency in Washington D.C. On every card was a signature telling the EPA to "Ditch the Rule!"

If allowed to move forward, the EPA and U.S. Army Corps of Engineers would have jurisdiction over nearly every water body in the country, including small creeks, streams and rain dependent ditches. That proposed expansion brings a raft of uncertainty, including if farmers would need to obtain federal permits for normal farming activities such as weed control and fence installation near water bodies the EPA claims it can regulate.

Throughout the summer, Farm Bureau has been talking to farmers and landowners at county fairs, Ag Progress Days and other events telling them about the harm that could come from the possible expansion of authority under the Clean Water Act. For instance, Farm Bureau members in McKean and Crawford counties collected nearly 1,000 post cards at county fairs.

Farm Bureau forwarded more than 3,200 post cards to the EPA prior to the close of the agency's comment period on the "waters of the U.S." rule. At the same time, more than 1,000 Farm Bureau members used our ActNow legislative contact tool to make their voice heard.

Farm Bureau is not alone in this fight. Recently, members of the House of Representatives passed H.R. 5078 which would prevent the EPA and Army Corps from moving ahead with the rule.

Passage of the bill sends "an unmistakable signal that the tide is turning against those who ignore the constitutional separation of powers in the United States," said American Farm Bureau Federation President Bob Stallman. "We will ditch this rule."

The bill now heads to the Senate, which has shown limited interest in taking up the measure. If passed, the bill would prevent the agencies from using the rule for future administrative actions that undermines the federal-state partnership or attempts to go around the authority of Congress to change the Clean Water Act.

*From **Pennsylvania Agricultural Alliance Issues Update**, Penna. Farm Bureau, October 2014.*

### Farm Bureau Lobbies for Cash Accounting

The American Farm Bureau Federation is urging Congress to allow farmers to continue to use cash accounting. A bill currently before the Senate would require that small businesses

*(continued on page 6)*



# CROP CARE

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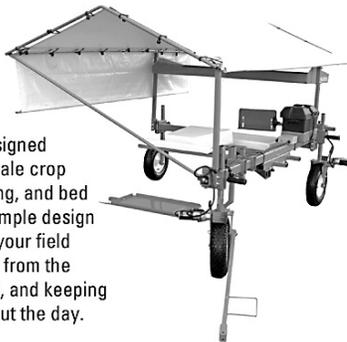
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**Sandy Lake Imp Co, Inc.**  
 Sandy Lake..... 724-376-2489

**Cedar Grove Farm Store**  
 Shippensburg..... 717-532-7571

## NEWS

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with receipts greater than \$10 million a year would be forced to use the accrual accounting method.

A bipartisan group of Congress has signed a letter that recommends that farmers be allowed to continue with cash accounting. Under an accrual accounting system, small businesses would be taxed on non-existent income, reducing cash flow of operating costs. Farmers could be faced with the need to take out loans to cover liquidity problems.

"We are pleased to see members of Congress reach across party lines and stand together for farmers and ranchers who are working to build their businesses and communities," AFBF President Bob Stallman said.

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**WIC Moms and Children Buying/Eating More Fresh Fruits and Vegetables**

WIC families are buying more fresh fruits and vegetables and have increased their overall fruit and vegetable consumption as a result of the fruit and vegetable cash-value benefit added to WIC in 2009. Purchasing patterns by WIC families show a strong preference for buying fresh fruits and vegetables; the most popular fruits and vegetables purchased are bananas, apples, grapes, greens, carrots and tomatoes. Presentations this week at the Institute of Medicine (IOM) noted that 90 percent of WIC beneficiary families purchased fruit using their cash value benefit, 87 percent of which was fresh fruit. And, 60 percent of WIC families bought vegetables, 52 percent of which were fresh.

In 2009, fruits and vegetables were added to the WIC Program (Special Supplemental Nutrition Program for Women, Infants, and Children), which now benefits more than 8 million low-income pregnant women, their infants and young children. Moms receive a \$12/month cash-value benefit for fruits and vegetables and children receive an \$8/month benefit.

Also, a new summary report *The Impact of the Revised WIC Food Packages on Nutrition Outcomes and the Retail Food Environment* by FRAC (Food Research and Action Center) notes that young children enrolled in WIC have increased their consumption of fruits and vegetables, and overweight and obesity rates among this group have declined modestly over the last 3 years.

The IOM has convened a new scientific committee to review and make evidence-based recommendations on revising the WIC Food package, including white potatoes.

For more than a decade, United Fresh has played a leadership role in advocating for fresh fruits and vegetables to be included in WIC and to increase the value of the fruit and vegetable benefit for moms and children.

*From Inside United Fresh, United Fresh Produce Association, October 16, 2014.*

**Sound Science Must Guide Endangered Species Process**

Bats play a valuable role in agriculture. Feasting on bugs and pests as they dart through the air at night, the humble bat is a pest control powerhouse, saving American farmers billions of dollars in crop protection.

However, White Nose Syndrome has decimated bat populations, particularly the Northern Long Eared Bat—which ranges throughout Pennsylvania and the East Coast. Some environ-

mental groups have pushed for the bat to be placed on the federal endangered species act, but that designation would have far reaching consequences for farming and forestry. Recently, Farm Bureau participated in a hearing before the Congressional House Committee on Natural Resources arguing the designation would put farmers and timber companies at risk, while doing little to correct the root cause of the decline in bat populations.

White nose syndrome has decimated bat populations. Caused by a fungus, and spread by bat-to-bat contact, the disease has caused nearly 100 percent declines in some hibernating bat populations. That's why some environmental groups are pushing for the Northern Long Eared Bat to be placed on the endangered species list. If that were to occur, it would nearly shut down the state's forestry industry. Loggers would be unable to move or cut timber for most of the year. Farmers with bats nesting in buildings would be unable to tear down or repair those structures, except during times when bats are hibernating. However those moves would not address white nose syndrome—the real culprit behind bat deaths.

"The Endangered Species Act has generated unintended consequences," Rep. Glenn "GT" Thompson said during the hearing. "We want to build consensus around positive solutions that don't have significant impacts on landowners."

PFB State Board Member Jim Brubaker, who testified on behalf of Farm Bureau at the hearing, said farmers are concerned about the conservation of natural resources, as long as they are based on sound science. Shutting off crop production areas near bat nesting sites fails to fix the problems caused by white nose syndrome.

"We want practical solutions that work for agriculture – and the environment," he said. "Let's make sure we're solving problems, not creating new ones."

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**Wanted:  
Pictures from Your Farm**

To add interest and consumer education value to the PVGA Farm Show Food Booth, last year Nancy Grace put together a visual presentation of scenes from Pennsylvania vegetable farms across the state to project on a large screen at the PVGA booth. We would like to add some new pictures to the presentation, so we need your help. Pictures from your farm of your crops and your planting, harvesting or packing operations as well as your market are needed. We could also include video clips of your farm. So get out your camera and take a couple dozen pictures for PVGA. Send them to us on a CD (PVGA, 815 Middle Road, Richfield, PA 17086) or by email (pvga@pvga.org). If you already have some pictures from earlier this summer or previous years, send them as well.



# State News Briefs

## CDL Exemption Bill Passes General Assembly

The Pennsylvania General Assembly has approved a bill that would exempt farmers from the requirements for commercial driver's license when operating farm trucks. The bill now heads to Gov. Tom Corbett for his signature. House Bill 2092, sponsored by Rep. Mark Keller, exempts drivers of farm-registered trucks from the requirements when the trucks are driven anywhere in Pennsylvania, or within a 150-mile radius of the farm when crossing state lines. This bill makes state law consistent with federal law. Previously, operators of farm trucks would have had to follow CDL requirements designed for commercial truck drivers. Farm Bureau pushed to have the bill considered by the General Assembly before the legislative session ended.

*From Farm Bureau Express, Penna. Farm Bureau, October 10, 2014.*

## Agriculture Building Bill Approved by State Lawmakers

A bill that amends the state uniform construction code to clarify the types of buildings exempt from regulations has passed the General Assembly. The bill now heads to Gov. Tom Corbett for his approval. House Bill 1440, sponsored by Rep. Karen Boback, clarifies that buildings used for planting and grow-



ing of agriculture and horticulture products qualifies for the building code's "agriculture building" exemption. Previously, there was confusion as to whether buildings such as high tunnels had to follow the state uniform construction code. "House Bill 1440 is just a common sense extension of the exemption already existing in the state building code. The code currently exempts farm structures that store farm products," said PFB President Carl T. Shaffer. "House Bill 1440 will ensure the exemption is uniformly applied statewide to greenhouses and other structures that farmers may use to lengthen their growing seasons in production of vegetables, fruits and other horticultural products."

*From Farm Bureau Express, Penna. Farm Bureau, October 10, 2014.*

*From Farm Bureau Express, Penna. Farm Bureau, October 10, 2014.*

## State Agriculture Committee Holds GMO Hearing

The House Agriculture and Rural Affairs Committee hosted a hearing on genetically modified organisms (GMOs) and their use in agriculture. Scientists from across the country participated in the hearing, and most of them supported the use of GMO technology in food production as a way produce a more reliable crop. The hearing was called by Rep. John Maher, who chairs the committee, to help educate members about the issue of GMOs use in food. "Although federal legislation to address GMO labeling and safety has stalled, recent action in other states toward mandated labeling of GMO food has captured the attention of Pennsylvania residents who are urging legislative action," said Maher. "I believe education should precede legis-

*(continued on page 8)*

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## NEWS

**State News Briefs** *(continued from page 7)*

lation, and I am holding this hearing to educate legislators on the subject." Vermont became the first state to require the labeling of food products containing GMOs. Similar legislation has been introduced in Pennsylvania, but has not seen action this legislative session.

*From Pennsylvania Farm Bureau Express, Penna. Farm Bureau, October 10, 2014.*

**Agricultural Loads May Be Under Scrutiny During Harvest**

Pennsylvania Farm Bureau encourages farmers to be familiar with Vehicle Code laws as harvest approaches. One of the most frequent calls on agricultural transportation is concerns securing the load when transporting crops from the field and onto the highways. The Pennsylvania Vehicle Code states all loads driven on the highways must be prevented from dropping or escaping. Agriculture is not exempt from securing loads except for feathers or other matter escaping from vehicles hauling birds or animals. Visit <http://transportation.pfb.com> to learn more.

*From Pennsylvania Farm Bureau Express, Penna. Farm Bureau, September 26, 2014.*

**Property Tax Elimination Bill Passes Senate Committee**

Members of the Senate Finance Committee have passed a bill that would eliminate school property taxes and instead shift to an increase in income and sales taxes to fund schools. Senate Bill 76, supported by Pennsylvania Farm Bureau, was narrowly adopted by the committee, but saw bipartisan support.

If signed into law, SB 76 would increase the state income tax rate to 4.34 percent from its current rate of 3.07 percent and increase sales taxes to 7 percent from its current rate of 6 percent. Additional goods and services would be subject to sales taxes, including some food and clothing items.

"For too many years, legislative plans to remedy this problem have languished in committee, never to see the light of day," said Sen. David Argall, prime sponsor of SB 76. The Senate is not expected to take action on the bill during the remainder of this legislative session.

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**PFB Urges Game Commission to Address Wildlife Damage**

Pennsylvania Farm Bureau has asked the Pennsylvania Game Commission to take action this year to help farmers who are dealing with an increase in crop damage caused by wildlife.

During a meeting before the Board of Commissioners, Farm Bureau said that waiting until 2015 will only prolong the problem of farmers combating localized crop damages.

"We ask for your attention to this problem this season, and to do all within your power or the authority of the Executive Director to help farmers in these areas to reduce damage," said Jeff Grove, PFB's local government affairs director.

Prior action by the Game Commission to eliminate concurrent deer seasons and reduce doe applications appear to have resulted in significant statewide crop damage, Grove said. PFB has also received an increase in complaints about bear damage, particularly in Tioga, Potter and Warren counties. One farmer in

Warren County estimated he suffered at least \$15,000 in crop damage due to bears.

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**Local Tax Bill Hits Snag**

Members of a state House committee have approved a bill that would bring more uniformity in filing local tax returns. But an amendment added to the bill may jeopardize its passage this legislative term.

The House Finance Committee approved Senate Bill 491, introduced by Sen. Mike Folmer, which would allow farmers to use a simpler method for tax filing that requires one filing and payment to be made after the tax year is completed. Current state and federal income laws give "safe harbor" provisions that allow farmers to base their current tax year's obligations for quarterly estimated tax payments on the previous year. However, there is no "safe harbor" provisions for filing local taxes.

The House Finance Committee used this bill to add sweeping legislation dealing with school district property tax reform. While Farm Bureau supports components of both bills, the Committee's tactic to add this type of legislation unrelated to the bill's original purpose makes it unlikely that it will pass this legislative session.

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**Masser Wins 40 Under 40 Award**

David Masser, president of Sterman Masser Inc., was named one of the "40 Under 40" awards program by Vance Publishing. The company, producers of several agriculture publications, recognizes young people who are making a contribution to agriculture.

"These are 40 of the brightest leaders in the agriculture industry, and we hope readers of all our brands are inspired by the work these young people are doing," said Greg Johnson, editor of The Packer, produced by Vance Publishing.

Masser, 39, is president of his family's potato growing and packaging company in Schuylkill County. Sterman Masser Inc. packages and distributes more than 250 million pounds of potatoes a year.

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**PUC Rule Could Curtail On-Farm Electricity Generation**

Farmers across the state have been using solar energy and methane digesters to generate electricity for their farms, and at the same time supply power to the electrical grid. But, a new proposal by the Pennsylvania Utility Commission could prevent farmers from receiving more favorable net metering rates, a move Pennsylvania Farm Bureau believes would curtail development of on-farm energy projects.

Under a rule proposed by the PUC, farmers would only be able to operate systems with a maximum generating capacity of 110 percent of their farms' electricity needs. If the system has the ability to produce more, a farmer would lose their eligibility to receive the net metering rate (based on retail price) for surplus electricity the farmer would supply. If the rule moves forward, it would curtail future expansion of methane digesters,

*(continued on page 9)*

**State News Briefs** *(continued from page 8)*

and also hurt farms that are generating renewable energy, said Mike Brubaker, whose family farm in Lancaster County has installed both solar panels and a methane digester.

"We produce more electricity than we use," he said. "There's a number of ways this could negatively affect our operation."

Currently, on farm electricity generation projects are listed as "customer generators." The proposed PUC regulation is trying to prevent commercial power companies from masquerading as "customer generators" through similar electricity production practices.

In comments to the PUC, Farm Bureau suggested the commission create exemption from the proposed rule for those legitimately engaged in agriculture. Failing to do so will shut down new on-farm energy projects because most farm families would be unable to afford the capital costs of the project, without receiving net metering benefits.

*From Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, October 2014.*

**Farm Show Manager Passes Away**

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



quintessential citizen-statesman, who divided his time between the work of the independent businessman and the challenging world of public policy," Gov. Tom Corbett said in a statement. "His values were the values of the Pennsylvania small businessman and farmer: thrift, hard work and civic spirit."

*From Farm Bureau Express, Penna. Farm Bureau, October 10, 2014.*

**Penn State Extension Offering Free Energy Review**

Farmers - is your farm energy efficient? Would you like to find out how your operation compares? Penn State Extension is providing a free energy review for farms in the Keystone State. Sign up now to learn valuable information about your energy use.

Here is how it works: We analyze your energy use from the past year (or two), adjust it for factors such as farm type and farm size, and calculate an "Energy Use Index" for your farm.

You will be able to see how your farm compares to others, which will help you see whether or not it would make sense to look into energy saving measures to reduce your usage.

This is a free service, which is being done as part of a student project this year. If you are interested in taking part, please contact Dan Ciolkosz at Penn State Extension, dec109@psu.edu or 814.863.3484, or visit <http://extension.psu.edu/natural-resources/energy/energy-use/resources/farm-energy-benchmarking-project>.

*From Penn State Univ. (continued on page 10)*

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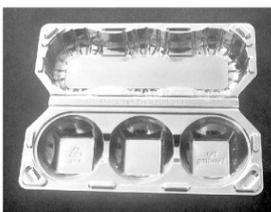
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## NEWS

**Mock Farm Food Safety Audit Workshops Planned for This Fall**

Penn State Extension and the Pennsylvania Department of Agriculture (PDA) are hosting a series of Mock Farm Food Safety Audits and Food Safety Trainings in October, November, and December on farms in Adams, Allegheny, Wyoming, Lehigh, Berks, Northampton, and Montgomery counties. These events, held on working farms, are designed to help small-scale produce farmers gain a better understanding of what to expect from a third party Good Agricultural Practices (GAP) audit.

Come for a walk-through tour with a PDA inspector to review the types of things an auditor looks for. The tour will examine several areas: documentation, water sources, employee policies, behaviors and conditions that increase contamination risks, use and storage of chemicals, and harvest operations. Learn from one another as we explore ways to improve food production and safety at the farm level. Participants will be provided with copies of the 'Harmonized GAP, and Standard Gap Audit Checklist,' Guides, 'Cost-Share Reimbursement Factsheet,' and 'How to Sign Up for an Audit Contacts.' A question and answer session follows.

Dates and times vary by location. Please visit <http://extension.psu.edu/food-safety/> for more information about specific workshops.

**State News Briefs** (continued from page 9)**New Apple Varieties Tested at Penn State**

Rubinola is a product of Prima x Rubin from the Czech Republic. It is a medium sized fruit with a striped red color. The firm crisp fruit has a sweet tart slightly spiced taste that is high in vitamin C content. Fruit have about a 90 day life in regular storage although towards the end they can develop a greasy skin. Trees are moderately vigorous. The cultivar is resistant to apple scab and powdery mildew. Drawbacks are stem-end russetting and having thick skin typical of scab resistant cultivars. Rubinola is probably only suitable for home owner planting.

Autumn Crisp was developed at Cornell University from a cross of Golden Delicious x Monroe. It was extensively tested as NY 674. The bright red blushed fruit have a white flesh that is slow to oxidize. Although not related to it, the texture is similar to Honeycrisp and very juicy. While good for fresh consumption it was also developed to be used as a processing cultivar. This cultivar is being produced by growers in New York and New England and one grower in Pennsylvania.

Pixie Crunch was released from the Purdue, Rutgers, Illinois (PRI) breeding program as Co-op 33. The fruit are a deep red with some slight russet around the stem on some fruit. Fruit are on the small side but are perfect for a snack apple. The yellow flesh is very crisp hence the "crunch" appellation. The flavor is described as rich with a complex mixture of sweet and tart. Trees are moderately vigorous and resistant to apple scab and moderately resistant to fire blight and frog eye leafspot. Pixie Crunch is susceptible to powdery mildew and cedar apple rust.

*From Penn State Univ.*

**REAP Funding Available**

Pennsylvania farmers can use a state tax credit program to purchase equipment, or utilize best management practices that promotes conservation. The Resource Enhancement and Protection (REAP) program provides tax credits for farmers who want to install best management practices or buy equipment that will help reduce erosion or sediments. REAP, administered

November 12, 2014, 1:00 PM - 4:00 PM  
Berks County Site to be Announced

November 25, 2014, 3:30 PM - 5:30 PM  
Schwalm Farms, 103 Valley Rd., Hegins, PA 17938

December 4, 2014, 1:00 PM - 4:00 PM  
Sunrise Sunflowers 886 Morwood Road, Harleysville, PA

December 17, 2014, 3:30 PM - 5:30 PM  
Gray Wolf Plantation, 350 Forest Drive, New Oxford, PA

No registration or fee is required. For more information, please contact: Tianna DuPont 610-746-1970

*From Vegetable, Small Fruit and Mushroom News, Penn State Extension, <http://extension.psu.edu/food-safety/farm> or <http://extension.psu.edu/vegetable-fruit>, September 20, 2014.*

by the State Conservation Commission, provides farmers an incentive to purchase equipment. Farmers can now start submitting applications. Projects are considered on a first-come, first-served basis. Private investors can sponsor projects by providing money for producers, in return for tax credits. Farmers can receive tax credits of up to \$150,000 per operation for 50 or 75 percent of the total project costs. Common projects approved include no-till planting equipment and waste storage facilities. Applications for the 2014-2015 REAP program area available at [www.pda.state.pa.us/REAP](http://www.pda.state.pa.us/REAP) under "Forms," or by contacting Joel Semke at 717-705-4032 or [jsemke@pa.gov](mailto:jsemke@pa.gov).

*From Pennsylvania Agricultural Alliance Issues Updates, Penna. Farm Bureau, October 2014.*

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NEWS

# Advanced Topics in BioControls School Set for November 13 and 14

Effective biological control of insects, mites and diseases is now both practical and economic. The Advanced Topics in BioControls School is designed to expand your toolbox and grow your expertise in implementing these technologies.

The School will be held November 13 and 14, 2014, at the Lancaster Farm and Home Center, 1383 Arcadia Road, in Lancaster.

Day one will focus on insect and mite management and Day two will focus on disease management. Greenhouse and high tunnel growers of vegetables, small fruit and ornamentals will come away from this program with more options for pest management. This program is organic and conventional grower friendly.

Pesticide credits will be awarded to licensed applicators.

Registration cost is \$175 (or \$145 if registered before November 4) includes: all program materials, snacks and lunch. A CD/DVD of all power points and handouts will be sent after the meeting to each paid participant.

Program topics include:

- Might you manage mites? - Of course you can. Come learn about pest mites in the greenhouse along with their control options.
  - New Biopesticides for Thrips, Mite and Aphid Management
  - Optimizing the Efficacy of Grandevo for Insect and Mite Control in Indoor and Outdoor Vegetables.
  - Designing and Implementing a Biocontrol Program in a Tomato High Tunnel or Greenhouse.
  - Dynamic Decision Making in Biological Control.
  - The Banker Plant Program at Peacetree Farms; How I use Banker Plants to keep Insects and Mites under Control
  - Best Use Practices to make Soil and Foliar Biological Materials such as RootShield and Cease Work.
  - Tips on Using Microbials Fungicides to Control Foliar Disease that Really Work.
  - How Biological Fungicides and Bactericides Work and Resistance Management Strategies.
  - Feed the Soil for Active Soils and Healthy Roots
  - Incorporating Biologicals and Non-chemical disease controls into plant propagation
  - Making the most of Actinovate and Things Growers need to know for maximum efficacy
  - Biocontrol of Root Diseases in Floriculture Crops
  - Review of research on efficacy data on various biocontrol agents on specific crops and pests
- Speakers include:
- Steve Bogash, Horticulture Educator, PSU Extension
  - Alyssa Collins, PSU SEAREC Station Director and Plant Pathologist
  - Tianna Dupont, Horticulture Educator, PSU Extension
  - Tom Ford, Horticulture Educator, PSU Extension
  - Carol Glenister, Entomologist, IPM Labs

- Beth Gugino, PSU Plant Pathologist
- Tim Johnson, Product Development Director, Marrone Bio Innovations
- Matthew Krause, Product Development Manager, BioWorks
- Gary Moorman, PSU Plant Pathologist
- George Stallings, Technical Development, Monsanto BioAg
- Lloyd Traven, Owner, PeaceTree Farms
- Suzanne Wainwright-Evans, Buglady Consulting
- Rick Yates, GGSPRO Technical Services Manager, Griffin Greenhouse Supplies

To register, go to <http://extension.psu.edu/plants/vegetable-fruit/events> or call 717-240-6500. Deadline is November 7, 2014.



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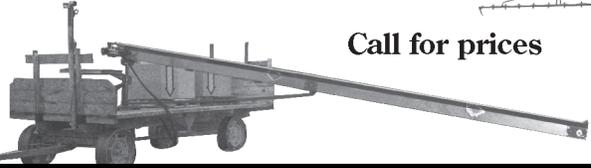
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## NEWS

## Profits: Choosing Your Marketing Methods Workshop on December 10

Penn State Extension of Lehigh County is pleased to announce a workshop devoted to helping farmers assess and choose marketing methods. Those interested in direct-to-consumer sales will learn with experts from Pennsylvania and New York.

The workshop will be held on Wednesday, December 10, 2014, from 8:30 a.m. to 4 p.m. It will be at the Penn State Lehigh Valley Campus, Room 135, 2809 Saucon Valley Road, Center Valley, PA 18034

There are many ways to sell your product: farmers' market, CSA, farm stand, wholesale, direct to institution, online, u-pick, and more. This workshop will help you match the right market mix to your customers, your business goals and your personal skills and resources.

Topics include:

Insights on Retail Food Trends for CSA Farms, Farmers' Markets and Roadside Stands by Heather E. Mikulas, Penn State Extension, Allegheny County, PA

Assessing Marketing Channels by Matt LeRoux, Cornell University Extension, Tompkins County, NY

Pluses, Minuses, Requirements of Farmers' Markets and CSA's by Steve Shelly, Gottschell Farm, Coopersburg, PA

Pluses, Minuses, Requirements of Roadside Stands and Wholesale by Mike Fink, Mike Finks Produce and Heidel Hollow Farm, Germansville, PA

Direct To Consumer Farm Marketing Through Social Media by Sarah Cornelisse, Penn State Extension

The speakers include:

Heather E. Mikulas, MS, Program Manager: Community Based Agriculture, Penn State Extension, Allegheny County.

Heather Mikulas currently works on local food infrastructure development and agricultural entrepreneurship for Pennsylvania State University, Extension Office in Allegheny County. She has an earned M.Sc. in Sustainable Systems: Agroecology and undergraduate B.S.B.A in Business Administration and Marketing. She is also Chair of the Pittsburgh Food Policy Council.

Mathew LeRoux, Agriculture Marketing Specialist, Cornell Cooperative Extension Tompkins County, New York. Mathew

earned a Masters in Ag/Food Marketing and is a Niche Meat Processor Assistance Network Advisory Board Member.

Mathew works with farmers on business development, direct and wholesale marketing, market channel selection and cost analysis, marketing and processing regulations, and agritourism. He worked for five years for the New England Livestock Alliance and Heritage Breeds Conservancy. Mathew started two brands of Natural and Grass-fed beef.

Steve Shelly, Gottschell Farm, Coopersburg. Steve completed an internship on a certified organic farm in New York state. He interned at Somerton Tanks Farm, a new urban farm in Philadelphia, running all farming aspects from 2004 until 2006. After his internship he purchased Gottschell Farm and used sustainable farming practices to overcome the weeds and low fertility levels. Steve is active in the farm community and served as president of the Emmaus Farmers' Market.

Mike Fink, Mike Fink's Produce and Heidel Hollow Farm, Inc., Germansville. Mike is a fifth generation farmer, past chair of Pennsylvania Farm Bureau Young Farmer and Rancher committee, and past member of the American Farm Bureau Young Farmer and Rancher Committee.

Mike markets his products at Water Wheel Farm Stand and the farm store at Heidel Hollow. His produce can be purchased at Lehigh Valley stores such as Redner's Warehouse Markets and at other grocery stores along the east coast.

Sarah Cornelisse, Senior Extension Associate, Penn State Extension, M.S. Agricultural Economics, M.S. Animal Science.

Areas of Expertise: Marketing, Social Media, Business and Marketing Planning, Value-Added Dairy and Meat.

Registration is \$55.00 Registration fee includes lunch and refreshments. To register go on-line to: <http://extension.psu.edu/business/farm/events> Scroll down the web page to "December2014," click on "PROFITS: Choosing Your Marketing Methods Workshop" and follow the directions to register. Registration deadline is November 25, 2014. Space is limited so register early. To register by phone or for registration questions, call: 610-391-9840.

## New Organic Farming Research Webinars Offered

eOrganic is excited to announce our 5th season of webinars on organic farming and research! This season's program features many regional and national research groups and farmers working on organic weed and insect management, organic grain production, and organic plant breeding. All webinars are free and open to the public, and advance registration is required. Register for any of the webinars at the links below and check our schedule of upcoming and archived webinars regularly, because we'll be adding many more webinars and live conference broadcasts soon!

From [extension.org](http://extension.org), October 2014,  
<http://www.extension.org/pages/71373/october-2014>  
#comments

Upcoming Webinars	Presenters	Date
Diversity by Design: Using Trap Crops to Control the Cruciferous Flea Beetle	Joyce Parker, EPA	November 11, 2014
Dehulling Ancient Grains	Brian Baker; Nigel Tudor, Weatherbury Farm; Elizabeth Dyck, OGRIN	November 18, 2014
IPM in Crucifer Crops: Focus on the Yellowmargined Leaf Beetle	Rammohan Balusu and Ayanava Majumdar, Auburn University; Ron Cave, University of Florida	December 2, 2014
Managing Bad Stink Bugs with Good Stink Bugs	Yong-Lak Park, West Virginia University	January 22, 2015
Building Pest-Suppressive Organic Farms: Tools and Strategies Used by Five Long-Term Organic Farms	Helen Atthowe and Carl Rosato, Woodleaf Farm	February 10, 2015
Blasting the Competition Away: Air-propelled Abrasive Grits for Weed Management in Organic Grain and Vegetable Crops	Sam Wortman, University of Illinois; Frank Forcella, USDA-ARS; Sharon Clay and Daniel Humburg, University of South Dakota	February 17, 2015
Promoting Native Bee Pollinators in Organic Farming Systems	David Crowder and Elias Bloom, Washington State University	March 10, 2015

## Two December Conferences Provide Resources for Organic Producers

### Organic Vegetable Production Intensive

Penn State Extension presents the fifth annual two-day Organic Vegetable Production Intensive on December 11 and 12 in Easton, Pennsylvania. The advanced grower track will focus on farm success, an in-depth look at profitable farms with different marketing models. Expert farmer presentation and discussion will focus on factors contributing to farm profitability including labor management, marketing, production efficiencies, infrastructure and equipment. Speakers include Dan Kaplan, Brookfield Farm, Amherst, Massachusetts, and Chris and Eve Kaplan-Walbrecht, Riverhead, New York. The production track will focus this year on Ecological Disease Management. Ecological Disease Management is successful when we understand the biology of plant diseases and how they interact with their environments. Dr. Beth Gugino, Penn State Extension and Dr. Meg McGrath, Cornell University, will provide the latest research on systems based management for bacterial diseases of onions and tomatoes, soil borne diseases, late blight and downy mildew. Two discussion periods will allow for growers to question researchers, share their current successful strategies and provide feedback on research needs. To apply visit [extension.psu.edu/vegetable-fruit](http://extension.psu.edu/vegetable-fruit) or contact Tianna DuPont by email at [tdupont@psu.edu](mailto:tdupont@psu.edu) or by telephone at 610-746-1970.



Production. The first annual conference is being coordinated through the Pennsylvania Department of Agriculture with support from the Rodale Institute, Pennsylvania Certified Organic (PCO), CROPP/Organic Valley, the USDA Natural Resources Conservation Service (NRCS), USDA-certified organic farmers, and PA Farm Link. For registration visit [www.pafarmlink.org](http://www.pafarmlink.org) or by calling Darlene Livingston at 717-705-2121 or Michele Brookins at 717-787-5319 or for more information.

### Growing Pennsylvania's Organic Farms Winter Conference

Make plans to join innovative and inspiring speakers for a special educational farm conference, Growing Pennsylvania's Organic Farms Winter Conference focused on advanced organic vegetable, crop, and livestock production. Scheduled for December 9 and 10, 2014 at the Sheraton Inn, 4650 Lindle Road in Harrisburg, Pennsylvania, the conference includes in-depth presentations and forums on current organic farming issues with speakers from universities with accomplished organic research programs, successful certified organic farmers, and farm industry representatives dedicated to organic production. Sessions will include topics on animal health, dairy, pastured livestock, fruits, vegetables, soil health, pest control, transitioning to organic production, and becoming certified through the USDA National Organic Program. Hubert Karreman, VMD, of the Rodale Institute will speak on Organic Animal Health Management; Jim Travis of Travis Organics will discuss Growing Organic Peaches and Apples, and Keith Waldron of Cornell University offers options on Organic Fly Control that Works. Tom Frantzen comes to us from Frantzen Family Farm in New Hampton, Iowa to offer his experience in Organic Pig

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## NEWS

## Vegetable and Small Fruit Production Winter Webinars Planned

Penn State and Cornell University have teamed up to present a series of webinars to keep you informed about critical production issues. This series provides convenient access to timely updates in commercial vegetable and small fruit production for extension educators, producers, and industry representatives in Pennsylvania, New York, and surrounding states.

### Dates, Topics and Speakers:

December 10

Hydroponic Vegetable Production  
Tom Ford, Penn State

January 14

Current Issues in Strawberry Pest Management  
Kathy Demchak, Penn State, and Cathy Heidendreich, Cornell  
(2 PA Category Pesticide Credits Requested)

February 11

Soil Health Through Reduced Tillage and Cover Crops  
Carol MacNeil and Thomas Björkman, Cornell

March 4

Using Sanitizers in Wash Water  
Luke LaBorde, Penn State

March 25:

Tomato Nutrition in High Tunnels  
Steve Bogash, Penn State, and Judson Reid, Cornell

### Time

1:00—2:00 p.m.

### Cost

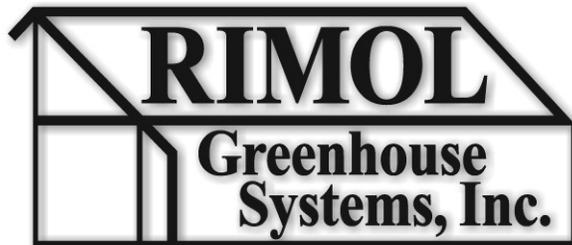
\$10 per webinar or \$35 for the whole series of five (payable by check or credit card); includes access to handouts and webinar recordings

To register, visit: [extension.psu.edu/vegetable-fruit/winter-webinars](http://extension.psu.edu/vegetable-fruit/winter-webinars) or call 724-627-3745.



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# PA Preferred™ Recognizes Member: Shenot Farm and Market

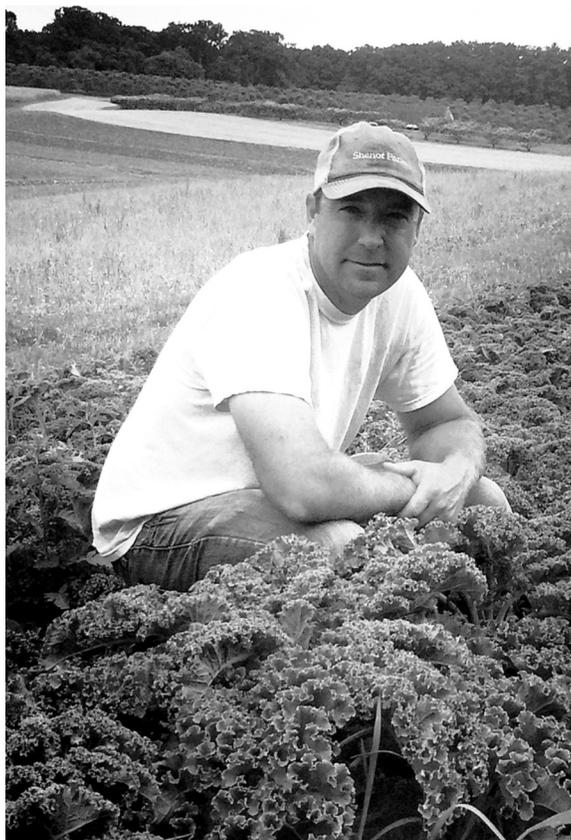
Since 1852, six generations of Shenots have provided fresh produce to the Wexford, Allegheny County area. Robert Shenot is carrying on that tradition, working alongside his parents Mary Lou and Ed at the family's Shenot Farm and Market.

Mary Lou manages the farm market, Ed oversees the farm and Rob runs the greenhouse. Rob enjoys working the land and seeing the growing process unfold through harvest and selling the product.

"As I pick eggplants I get to watch a green, unripe pumpkin turn orange," said Rob. "I can watch the trees bloom into full production. No matter the season, there is always something to look forward to on the farm and in the market.

"It's a great feeling to wake up every day and do what you love," he said. He understands, too, the importance of showing the consumer where their food is coming from, particularly because the farm is just 20 miles north of Pittsburgh, nestled in the city's northern suburbs.

"We have the opportunity to make strong connections with our customers on a day-to-day basis and market our products directly," said Rob, and he takes advantage of it. "It's nice to see the smiles on our customers' faces when they come back and share how



good their visit was last time, and how much they enjoy our products."

Shenot Farm and Market was established by Christopher Shenot, who delivered milk, sweet corn, apples and other vegetables door-to-door. Today, the business is a full-service farm market, stocked from the family's farm operation and other local businesses.

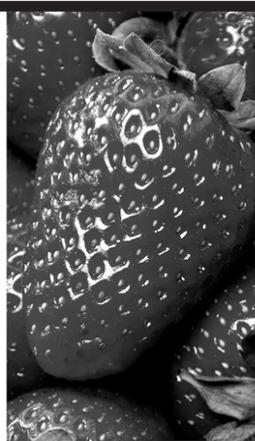
"Buying locally is basically the cornerstone of our business, as we are in Pittsburgh's northern suburbs," Rob said. "Even with large grocery chains in our area, there's a surge of interest in locally-grown food here and across the state." PA Preferred™ is helping identify those products for Shenot Farm and Market.

"It was great to watch as pieces came together and we got even more support at the state level," he said. "I've seen a strong shift toward buying local, and I believe PA Preferred™ has helped to make a big impact that way for us and other farmers."

The market is open year-round with customers' favorites like pumpkins, sweet corn, apples, tomatoes and peaches. Their apple cider was named First Place Cider at the 2011 Mid-Atlantic Fruit and Vegetable Growers Convention cider contest.

Atlantic Fruit and Vegetable Growers Convention cider contest.









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## GENERAL

## Farm Success through Successful Employees at Boistfort Valley Farm

Tianna DuPont

Mike Peroni owns and operates Boistfort Valley Farm; growing certified organic produce in Southwest Washington. Located along the Banks of the South Fork of the Chehalis River 90 miles South of Seattle, the farm covers about 70 acres, and in season, employs 25 people. He has been involved in direct farm marketing since 1988 and sells directly to consumers through farmers markets and a thriving CSA program. The farm also supplies select restaurants and regional retailers. Mike shares tips for successful employees.

### Creating Realistic Expectations

"Remember the reason it takes two employees to do every task you used to do your self is that you can't expect employees to work from dawn until 9:00 p.m. at night," Peroni reminded us. A good way to make sure that employees and managers have similar expectations is an employee orientation. Employee orientation is important to "make sure you are all on the same page" Peroni told us. At Boistfort Valley they have slowly developed a detailed employee handbook that outlines standard policies and things like safety procedures that are important for the business.

### Delegation

As farmers scale up it can be difficult to delegate to employees. "It is all about accountability," Peroni told us. Peroni uses a number of tools to help make sure employees know what needs to be done and how to effectively carry out the task. Checklists are one of these tools. "We are a bit procedure heavy," Peroni admits, but this came out of years of frustration where it became obvious that what may seem like common sense to us as farmers are often new concepts to new employees. Either that or "there is a definite lack of common sense." After years of thinking to himself, "I can't believe you have to remind people to keep flowers out of direct sunlight" he gave up and made checklists. For example take a look at the flower cutting procedure:

#### Flower Cutting Tasks:

- Cut, organize, bunch (if needed) and label flowers
- Keep inventory of flowers in cooler at all times, with cut dates
- ROTATE FLOWERS WEEKLY and discard any that are unusable
- Keep in communication with Produce/Production Manager regarding flower status.

#### Flower Cutting Daily Schedule

- 8:00 am arrive
- Take count of flowers, what's coming on, what needs to be cut.
- Fill lots of buckets more than halfway full with water. They should be tall or short enough to accommodate the flowers you're cutting. If more than one type is ready, cut them one type at a time.
- Label according to date cut, variety and count in the bucket. Each bucket should have the same number of flowers if you're not cutting specifically for the CSA. (eg, all lilies should be 30 stems per bucket. Or whatever # fits as long as they're not crushing each other.)
- Keep flowers out of direct sun at ALL times.
- Lilies will need to be stripped, and leaves cannot be left in the

field. Dedicate one large plastic tub to strip leaves over. Make sure to always put it away in the same place! Compost the leaves (and any other flower debris) in the large bin out back when finished.

- Get any flowers that won't be bunched into the cooler ASAP. Rotate older cuts to the front of the group. Please don't put buckets on pallets; they go all the way to the back of the cooler. Make sure EACH BUCKET has date, variety, and flower count on a tag, stapled to the handle.
- If bunching, try to figure out the bunches first, then cut accordingly. Always assume some will break or petals will fall off. I cut an extra 10 stems per 100 for annuals (zinnias, soft sunflowers, etc.).
- For all flowers, put extras in the CSA buckets for each drop site. Larger sites get more extras (more potential for breakage or people taking too many). Also, more fragile flowers or small flowers should get lots of extras.
- Please clean up at the end of the day, and put away any left-over buckets/flowers/compost.

In order to delegate tasks on the farm Peroni starts the week with a farm walk. For about four hours he walks the farm looking at every field and crop. He is down on his knees to look for aphids in the lettuce, scanning for disease and looking at crop maturity. He walks the seventy acre farm with a clipboard in hand making notes on a farm map labeled for each field and bed. After a thorough walk of the farm and overview of planting and harvest schedules he transfers his notes to an Excel spreadsheet. His spreadsheet is labeled by field, activity, and person responsible.

Field	Activity	Responsible	Notes
1A	Till	Jesus	
1A	Fert	Sara	
1C	Prep	Jesus	Wait till Tues still damp
2A	Irr	Marco	2 hrs
2B	Till	Jesus	
2C	Irr	Marco	

He can then keep two copies of the field activity sheet for every week, one for himself organized by field. The other for the crew which is organized by individual so that each crew member has their task list for the week.

Field	Activity	Responsible	Notes
1A	Till	Jesus	
1C	Prep	Jesus	Wait till Tues still damp
2B	Till	Jesus	
2A	Irr	Marco	2 hrs
2C	Irr	Marco	
1A	Fert	Sara	

(continued on page 18)

GENERAL

# On the Road... Brian Campbell Farms

Vegetable and field crops are grown on about 2000 acres at Brian Campbell Farms. Most of the vegetables are grown for supermarkets: about 96 acres of broccoli (Photo 1), 19 of cauliflower, 18 of lettuce, 330 of pumpkin and 265 of sweet corn. Additionally, 2 acres of mixed vegetables are grown for sale at a produce stand - Farmer Moofy's Produce. On September 12, 2014, Rachel Troyer, the food safety and integrated pest management manager, gave us a tour focusing on how they grow broccoli.



Broccoli is grown, harvested and stored to meet specifications for stalk size and length, crown diameter, appearance (Photo 2), storage temperatures and labeling provided by the supermarkets.



Photo 2 - Broccoli is grown and harvested to meet specifications provided by the supermarket it is sold to.



Photo 1 - A large field of broccoli. About 96 acres of broccoli are grown at the farm.

Transplants are produced in 288-cell flats on the farm. They are planted while small (about three leaves) in bare, flat ground (Photo 3). Transplanting starts at the end of March and a new area is planted about weekly until mid-July.

*(continued on page 18)*

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## GENERAL

**On the Road...** (continued from page 17)

Photo 3 - A 4-row mechanical planter is used to set transplants about 18 inches between rows and 12 inches within the row.

For the most part rainfall provides the moisture needed to grow the crop; however, drip irrigation is brought out when fields experience dry spells.

Some of the major pests and diseases that are closely monitored are deer, imported cabbage worm, flea beetle, cabbage looper, black rot and alternaria. Extra transplants are planted to account for loss from deer feeding and pesticides are sprayed by helicopter to manage insect pests and diseases.

Harvest occurs from June through November. Broccoli had just been harvested when we visited (Photo 4), but we were able to see cauliflower being harvested (Photo 5).



Photo 4 - Broccoli harvested earlier in the day waiting to be transported to the postharvest facility.



Photo 5 - Workers harvesting cauliflower.

Workers cut stalks of mature heads, meeting quality criteria, at the base with broccoli knives. They then trim wrapper leaves and place heads in collapsible bins (Photo 6).



Photo 6 - Once broccoli and cauliflower are harvested, heads are placed in collapsible bins.

Bins are placed on a wagon and then are moved to a refrigerated tractor trailer for cooling and transport to the farm's postharvest facility. Cauliflower is sleeved at the facility; broccoli bunches are sleeved while crowns are not. Both crops are hydro-cooled and iced before traveling to supermarkets.

Thank you to Brian Campbell Farms and Rachel Troyer for allowing us a glimpse of the farm.

Dr. Sanchez and Dr. Lamont are with the Department of Plant Science at Penn State Univ. Mr. Butzler and Mr. Esslinger are with Penn State Extension. From **Vegetable, Small Fruit and Mushroom News**, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, September 29, 2014.

**Farm Success...** (continued from page 16)**Communication**

Communication, communication, communication. Everyone wants to feel part of the farm, that their work is valued, and have a sense of how their work fits into the farm organism. At Boistfort Valley farm Peroni meets with the management crew once per week to plan the week. Once a month they meet with everyone on the farm which is not easy. The schedules for the drivers, packinghouse staff, office staff and field crew are all different. But it is well worth it. "When we are consistently meeting monthly there is an incredible feeling of flow," Peroni told us.

**Empowerment**

At Boistfort Valley Farm Mike Peroni has formed a lot of systems to help his employees succeed but these systems would not be enough without the meaningful relationships formed on the farm. It is important to create a culture of trust and comradery on the farm. Peroni thinks of it as "forming true partnerships." He often thinks about whether he has said thank you to his employees; "Did I wish him a Merry Christmas or send a gift for his daughter's quincinera?"

Mike shared employee management tips at the Penn State Organic Intensive 2013. For more information on Farm Success join us this year.

Ms. DuPont is with Penn State Extension in Northampton County. From the **Vegetable, Small Fruit and Mushroom News**, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, October 17, 2014.

VEGETABLE PRODUCTION

# Three Newer Biological Insecticides for Vegetable and Small Fruit Growers

Steven Bogash and Thomas Ford

This article reviews three of the newest biopesticides on the market for small fruit and vegetable growers: Grandevo, Met52 and PFR-97. These materials offer significantly different modes of action from traditional pesticides and add to growers' toolboxes for the control of whiteflies, aphids, thrips, and spider mites.

Much of the growth in new pesticides has been in the form of biologically-based materials. These pesticides can be sourced from naturally occurring bacteria in products like Dipel, Thuricide, and Javelin, from fungi in products like Botanigard, Met52, or PFR-97 or through the fermentation processes of two species of Saccharopolyspora bacteria like SpinTor\*, Entrust and Conserve. As a rule, biologically-based pesticides go through a substantially faster review process at the EPA than conventional materials made through more traditional typical chemical processes. In this article, we will review how Met52, PFR-97 and Grandevo work (their modes of action) and where they may fit into your pest control strategies.

## Grandevo

**Active Ingredient:** Chromobacterium substugae strain PRAA4-1 and spent fermentation media.

Grandevo is labeled for use on Asparagus, Cole Crops, Alliums, Bushberries, Caneberries, Sweetcorn, Cucurbits, Tomatoes, Peppers, Eggplants, Tomatillo, Grapes, Most Herbs, Hops, Most Leafy Vegetables, Beets, Turnips, Legumes, Most Roots and Tubers, and Strawberries.

**Pests controlled include:** Aphids, Armyworms, Cutworms, Whiteflies, Diamondback Moth, Cabbageworms, Thrips, Leafhoppers, Fruitworms, Corn Borers, Corn Earworms, Mites, Psyllids, Leafrollers and Plant bugs. This is a slightly abbreviated list, see the label for a more detailed listing.

**REI:** 4 hours, PHI: 0 days.

**Rate of application:** between 1lb and 3lb per acre depending on the crop and pest being treated.

Grandevo is OMRI listed and NOP approved.

Grandevo functions primarily as a stomach poison, so it must be ingested by insects and mites to be effective. It does not have systemic activity; therefore, it must be on the feeding surfaces to be effective. Like other stomach poisons, excellent plant coverage is necessary, so use plenty of water and pressure to get complete coverage. Grandevo is more effective on newly hatched larvae and nymph stages of insects and arthropods, so regular scouting and early applications are necessary for good control.

## Met52

**Active Ingredient:** Metarhizium anisopliae Strain F52

Met52 is labeled for use on Onions, Celery, Lettuce, Spinach, Peppers, Tomatoes, Grapes, Strawberries, Caneberries, Raspberries and Blackberries.

**Pests controlled include:** Thrips, Whiteflies, Mites, and Weevils.

*(continued on page 20)*



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	• Onions/Tomatoes	• Pumpkins

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## VEGETABLE PRODUCTION

## 2015 Commercial Recommendations Guide and Rutgers Experiment Station

Elsa Sanchez

Ever wonder how the Production Guide is updated?

Every year horticulturists, plant pathologists, entomologists and weed specialists from Penn State University, Rutgers University, the University of Delaware, Virginia Tech, the University of Maryland and West Virginia University meet to discuss what changes should be made to the guide based on new research results and changes in the vegetable industry.

This year the horticulture group met the Rutgers Agricultural Research and Extension Center in Bridgeton, New Jersey. It takes us about four hours to go through the guide to discuss updates that should be made and determine who will be responsible for each section. We have some great interactions and leave more knowledgeable about vegetable production than when the meeting started.



*The Commercial Vegetable Production Recommendations guide for Pennsylvania*



*Rutgers Agricultural Research and Extension Center in Bridgeton, NJ.*

The meeting location is chosen so that we get a tour of the research projects that are taking place at each university. Here are some highlights of what is being studied at Rutgers:

### Asparagus Mother Stalk Harvest System for Season Extension

In this production system a fixed number of spears are allowed to fern, usually in the range of two to four. Then, all spears that emerge from the crown are harvested. Research has shown that spears will appear more-or-less continuously for several months, as long as the mature shoots continue to prosper and grow. The dynamics of yield are not consistent, however. Following the expected flush of spears in April to June, the rate of new spear emergence drops off during the warmer summer period, then increases once again in the fall as air and soil temperatures drop. More information about this production system is in the Asparagus section of the guide.

*(continued on page 21)*

### Three Newer Biological...

*(continued from page 19)*

**REI:** 0 hours when soil incorporated and 4 hours when applied to the foliage

**PHI:** 0 days.

**Rate of application:** Drench: 40-80 oz. /100 gal. Foliar: .5pt to 2 qt. / acre.

Met52 does not appear to have a U.S. organic label at this time.

Met52 functions as a contact insecticide. Spores and or mycelia from the pathogenic fungus *M. anisopliae* that come in contact with insect penetrate the insect's exoskeleton and grow with the haemolymph (insect's blood) killing the insect or mite. The spores / mycelia do not need to be ingested, but must come into direct contact with the pests. Upon application, the spores / mycelia attach to the insect or mites cuticle. The spores / mycelia then germinate and form an appressorium which penetrates the pest's cuticle. Blastospores are then formed in the haemolymph (insect's blood) which circulates and begins a systemic infection which kills the insect in 4-5 days. Under higher humidity conditions such as in a greenhouse or high tunnel, it is possible to get reinfection of other pests as fungal hyphae emerge from the exoskeleton of infected insects or mites and release new spores into the environment.

### PFR-97

**Active Ingredient:** *Isaria fumosorosea* Apopka Strain 97.

PFR-97 is labeled for use on vegetable and strawberry transplants, strawberries, grapes, sweet corn, leafy vegetables, cucurbits, potatoes, beans, and herbs.

**Pests controlled include:** Black Vine Weevils, Thrips pupae, Rootworms, Wireworms, Beetle grubs and larvae, Lepidopteran caterpillars, Whiteflies, Aphids, Thrips, Spider mites, Broad mites, Rust mites, Leafminers, Mealybugs, Plant Bugs, and Psyllids.

**REI:** 4 hours, **PHI:** 0 days

**Rate of application:** 1lb – 2lb / acre for outdoor grown crops. Greenhouse production of transplants: 14-28 oz per 100 gallons applied to the foliage. Drench applications for soil surface and root feeding pests 14-28 oz./ 100 gallons with specific volumes applied per pot based on volume (see the label for these rates).

PFR-97 is OMRI labeled and NOP approved.

The fungus in PFR-97 infects both foliar and soil dwelling pests. Similarly to Met-52, it attaches to the insect or mite's cuticle, germinates, and then penetrates into the insect's or mites exoskeleton. Once inside the fungus continues to grow until it ultimately kills the insect or mite. Under high humidity conditions the white mycelia growth from this fungus will emerge from the dead insect / mite and will release more spores into the environment that can subsequently infect other insects / mites. As per the pesticides' label, PFR-97 is considered to be safe for use around bees and other beneficial insects. PFR-97 should not be tank mixed with fungicides, but it can be used with IGR's (Insect Growth Regulators such as buprofezin).

\*SpinTor is no longer on the market, but is used here as an example as it has been a highly effective tool for growers and is relatively well known in the industry. Both Conserve and Entrust contain the same active ingredient as SpinTor and are still readily available through your local pesticide dealer. Conserve is labeled for greenhouse and ornamental use and Entrust has an

*(continued on page 24)*

## VEGETABLE PRODUCTION

### 2015 Commercial Recommendations... (continued from page 20)



*Asparagus mother stalk harvest system research plots. Due to damage from a hail storm earlier in the growing season, the plots were not being harvested.*

#### Tomato and Pepper Breeding

Researchers are breeding fresh market tomatoes and exotic chile peppers. One of the goals of the fresh market tomato breeding program is for tomato cultivars with commercial value and good flavor - taking the Jersey tomato to the next step. Exotic and chile peppers are being bred to be more easily harvested.



*Fresh market tomato and exotic and chile pepper plots. The final data collection had already taken place for this season.*

### New Rule on Biodegradable Mulch Effective October 30

Effective October 30, 2014 is a new amendment to the National List of Allowed and Prohibited Substances on biodegradable biobased mulch film. This rule adds a new definition for biodegradable biobased mulch film that will be permitted in organic production that includes criteria and third-party standards for compostability, biodegradability, and biobased content. Read the rule, definitions and background information at <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5109128>

*From [extension.org](http://www.extension.org), October 2014,  
<http://www.extension.org/pages/71373/october-2014#comments>*

#### Basil Downy Mildew Project

Basil downy mildew is affecting 100% of the United States sweet basil industry. Researchers are tackling this problem with a two-pronged approach. They are breeding for resistance using genes from some of the flavored basil, for example from lemon basil. They are also conducting fungicide trials with materials for conventional and organic growers.



*Basil breeding field. Notice the blue flags which indicate a promising selection.*

#### Trap Cropping for Brown Marmorated Stink Bug Management

Brown Marmorated Stink Bug is an invasive pest causing large economic losses. The use of perimeter trap crops is being studied as a management option for organic growers. We saw bell pepper plots surrounded by sorghum and sunflower.



*A research plot of bell peppers surrounded with a trap crop of sorghum and sunflower for managing Brown Marmorated Stink Bug.*

*Dr. Sanchez is with the Department of Plant Science at Penn State Univ. From the **Vegetable, Small Fruit and Mushroom News**, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, September 29, 2014.*

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## VEGETABLE PRODUCTION

## Cucurbit Scab

Jason Lilley and Elsa Sanchez

Cucurbit scab can cause a dramatic decrease in fruit quality of various cucurbit crops, including summer and winter squash, pumpkin, melon, and watermelon.

In late August we found cucurbit scab on summer squash in research plots at Penn State's research farm at Rock Springs. Cucurbit scab is caused by the fungus *Cladosporium cucumerinum* and can cause a dramatic decrease in fruit quality of various cucurbit crops, including summer and winter squash, pumpkin, melon, and watermelon.



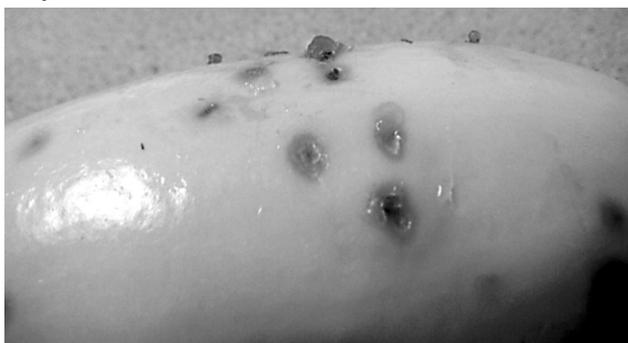
Summer squash fruit with severe cucurbit scab symptoms.

**Disease Symptoms** - Cucurbit scab symptoms appear on leaves and fruit. On leaves, symptoms are gray to brown lesions with a yellow halo. Severe foliar infections can cause leaf deformation. Fruit lesions first appear as small pockmarks, resembling insect damage.



Progression of cucurbit scab symptoms on summer squash fruit.

These lesions develop into pussy indentations approximately 1/2 inch in diameter.



Pussy exudate from cucurbit scab.

Multiple lesions will eventually grow together. The lesions can become sites for secondary decay organisms to take hold. Symptoms on fruit can have substantial economic impacts.

**Pathogen Life Cycle** - This pathogen overwinters on infected crop debris for up to 3 years. It may also spread through

seeds. Spores develop under moist conditions when temperatures are between 59° and 77°F. Spores are spread by insects, farm equipment, and workers brushing against infected plants. In crops such as summer squash that are harvested multiple times per week throughout the season, spreading of the spores once the infection occurs is inevitable.

**Prevention and Management** - Disease prevention is always the best management strategy. Once the disease has appeared in the field, management is very difficult. Prevention can be accomplished by the use of crop rotation. Fields should be planted with non-cucurbit crops for 2-3 years between cucurbit plantings.

Many scab resistant cultivars are available and should be favored. Seed catalogs will specify resistant cultivars. Seed should also be sourced from reputable seed sources that can ensure pathogen free seed.

Another strategy is to minimize moisture in the field when infection is most likely. Some options are selecting planting sites based on good soil drainage and air flow, selecting drip irrigation over overhead irrigation, managing weeds, and using appropriate plant spacing. Check the Pennsylvania Commercial Vegetable Production Recommendations guide (<http://pubs.cas.psu.edu/FreePubs/PDFs/AGRS028.pdf>) or seed catalogues for appropriate plant spacing for various crops and cultivars.

Protectant fungicides can be applied on a weekly schedule as recommended by the Commercial Vegetable Production Recommendations guide. Applications should begin well before the onset of fruiting.

### References and Sources for More Information

Scab of Cucurbits. Report on Plant Disease. September 1990. Univ. of Illinois Extension, <https://ipm.illinois.edu/diseases/rpds/928.pdf>.

Cucurbit Scab. Agriculture & Landscape Program. Vegetable Program. 2014. UMass Amherst Extension, <https://extension.umass.edu/vegetable/diseases/cucurbit-scab>

Commercial Vegetable Production Recommendations (Pennsylvania). 2014. Penn State University Extension, <http://pubs.cas.psu.edu/FreePubs/PDFs/AGRS028.pdf>.

Mr. Lilley and Dr. Sanchez are with the Department of Plant Science at Penn State Univ. From the **Vegetable, Small Fruit and Mushroom News**, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, September 30, 2014.

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## Serendipity in Research – Hollow Heart in Watermelon

Gordon Johnson

Much of research is tedium, the repetitive collection of data. A number of years ago, I had a conversation with a colleague about the value of being in the field to collect data. She stated that while most of the activities were tedious, she prefers to be there in person when data is collected. This is because of the unexpected, new observations that are often made by a trained eye. She termed it the serendipity factor.

The definition of serendipity is a “fortunate happenstance” or “pleasant surprise”. This is exactly what has happened with the discoveries that the University of Delaware vegetable program has made regarding hollow heart disorder in seedless watermelon.

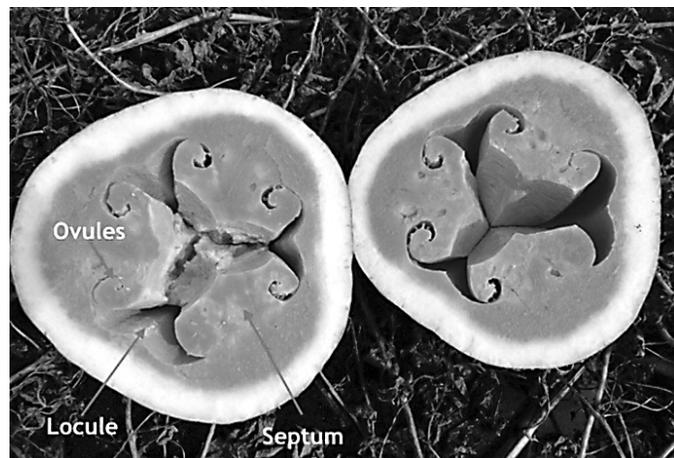
If you look at any reference up to 2 years ago, the stated cause for hollow heart in seedless watermelon was a stress related change in the growing environment, excess nitrogen, or wide fluctuations in water uptake by the plant. However, no watermelon researcher was able to replicate hollow heart by stressing plants, by giving excess nitrogen, or by fluctuating water.

On hearing a watermelon researcher several years ago observe that seedless watermelon hollow heart is often found in stray melons away from a pollen source, and another researcher postulate that plant hormones might be involved I set up some simple side experiments to look for hollow heart.

To make a long story short, these side projects have led to the discovery that hollow heart can be induced by limiting pollen. Seedless fruit will set, but will not develop properly under reduced pollen levels and hollow heart incidence will be increased dramatically.

Back to the idea of serendipity; we just had a “fortunate happenstance” occur this year with striking results. We had planted 4 blocks of seedless watermelons with no pollenizers to do some hand pollination research. We separated this trial from another trial with pollenizers by 50 feet, feeling this was adequate to avoid stray pollen. We did not have the time to do the hand pollination research and just recently decided to kill the plots with non-selective herbicide.

Lo and behold, once the vines were killed back, we found that one of the varieties that was nearest to the other trial 50' away had some fruit set. There were no other pollenizers or stray pollen sources nearby. I decided to cut these melons to look for hollow heart. Nearly all had severe hollow heart, and showed where development of the fruit occurred and where it did not.



In the picture to the left, note how the fruit developed normal size, but when cut, the fruit tissue showed extreme developmental abnormalities. The rind developed normally. The septa of the fruit developed, but not completely. The locules did not fill around the ovules (seedless watermelon ovules do not fertilize, even though there is a fertilization-like event during pollination). This resulted in severe hollow heart.



In the picture above, the septum was more developed and the locules filled more completely, making the hollow heart less severe.



In the picture above, the locules were more filled around the ovules but not completely and the septa were not completely developed leading to the triangular shaped hollow heart in the middle of the fruit. Note that hollow heart was already present in this immature fruit. We find hollow heart in immature fruit, suggesting that hollow heart occurs very early in fruit development. *Dr. Johnson is the Vegetable and Fruit Extension Specialist for the Univ. of Delaware. From the Weekly Crop Update, Univ. of Delaware, Vol. 22, Issue 27, September 26, 2014.*

## VEGETABLE PRODUCTION

## Grafting Heirloom Tomatoes for Increased Yields and Quality

Gerald Brust

Grafted vegetables are produced by joining the top part of one plant (the scion) to the root system of another plant (the rootstock). The subsequent plant is more vigorous and productive. Several studies have been done over the last 10 years that show the benefits of using grafting for soil disease control in tomato production, but there is not much research that examines the influence of rootstocks in non-diseased tomato high tunnel production systems. In general, grafting has been shown to enhance yield and improve crop tolerance. We looked at what would be the benefit, if any, of grafting an heirloom tomato variety, *Cherokee Purple*, (Fig. 1) onto a more vigorous rootstock (*Maxifort*) in a high tunnel production system. The data from this first year of study are still being worked on so this will act as a general summary as to what was done and what was found.

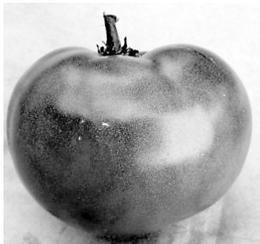
**Methods:** Grafting treatments consisted of three combinations: a rootstock/scion graft, a non-grafted control, and a self-grafted control (the scion and root stock were from different plants but the same variety (*Cherokee Purple*) to test for any 'grafting effects'. Seedlings were grafted using the Japanese tube-grafting method. Six weeks after grafting, all grafted and non-grafted plants were transplanted into the HT on March 15th. Black plastic mulch and drip irrigation were used. There were six rows that were 40ft long. Each row (plot) was divided into 20 ft sections, 10 tomatoes spaced 2 ft apart per plot. There were 4 replications.

Leaf tissue samples were taken at first flower bud and every two weeks throughout the study. Fruit harvests were conducted two-three times per week and sorted into marketable and non-marketable components. Non-marketable fruit categories consisted of: yellow shoulders, uneven ripening, cat-facing, blossom end rot, fruit cracking and 'other'. Fruit number and weight were recorded.

**Results:** Overall grafted plants (mean of 18.3 lbs/plant) had significantly greater yields of marketable fruit compared with non-grafted (14.5 lbs/plant) and self-grafted plants (13.8 lbs/plant). Grafted plants had on average 18% greater leaf tissue nutrient concentrations for N and P. The all-important nutrient K was 23% greater in grafted plants vs. self-grafted and non-grafted plants. Grafted plants had 25% greater overall yields, with ~30% greater marketable fruit yield compared with the non-grafted and self-grafted plants. Early, middle and later harvests were all about equal among the grafted and non-grafted plants, although there was a trend for grafted plants to have lower early yields compared with non-grafted plants. It does look possible, at least from this 1st year of study to increase yields and quality in heirloom tomatoes just by grafting the heirloom plant onto more vigorous root stock. But more data from different sites and in multiple years will be needed before we can say it is consistently cost-effective to graft heirloom plants in the absence of any disease problems.

*Figure 1. An example of a Cherokee Purple tomato from [http://www.tsflow-ers.com/seeds2/tomato\\_cherokee\\_purple\\_tomato\\_seeds.html](http://www.tsflow-ers.com/seeds2/tomato_cherokee_purple_tomato_seeds.html)*

*Dr. Brust is the IPM Specialist with the Univ. of Maryland. From the Weekly Crop Update, Univ. of Delaware, Vol. 22, Issue 27, September 26, 2014.*



## Three Newer Biological...

(continued from page 20)

OMRI label and can be used on a wide range of food crops. The insecticide Radiant has a similar mode of action as the spinosyns' Conserve and Entrust, and can be used outdoors on a wide range of vegetable crops.

With insects such as Western Flower Thrips (WFT) developing resistance to many of our traditional classes of insecticides, these biologically-based materials and their novel modes of action show great promise as tools in our IPM toolbox. If you plan to incorporate these insecticides into your pest management program remember to scout your crops frequently, to develop a management strategy ahead of time for common pests such as spider mites on greenhouse or high tunnel tomatoes and to trial these newest biological tools in your operation to learn when and how to use these pesticides effectively

For additional information on these insecticides and other biologically-based pest and disease management strategies consider attending the Penn State Extension program 'Advanced Topics in BioControls' at the Lancaster Farm and Home Center, Lancaster PA on November 13 & 14, 2014. <http://www.cvent.com/events/advanced-topics-in-biocontrols/event-summary-1d9368adf67c4122aea0e864045bce84.aspx>

*Mr. Bogash and Mr. Ford are with Penn State Extension in Cumberland and Cambria Counties respectively. From the Vegetable, Small Fruit and Mushroom News, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, September 29, 2014.*

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# Fall High Tunnel Management

Rose Ogutu

## Are your High Tunnel Side Vents still open during fall production?

Fall temperatures in Delaware (2012 USDA hardiness zone-7A) are characterized by falling temperatures (Table 1). Although we have not documented the average high tunnel temperatures during these months, it is commonly agreed that whether your high tunnel is single or double poly covered, they are above the temperatures listed in Table 1. The fall season is less than 60 days long and high tunnel growers go for quick maturing cool season crops, some of which are suggested in Table 2.

Table 1: Average Fall months' temperatures (°F) in Delaware, based on weather data collected from 1981 to 2010 by National Oceanic and Atmospheric Administration (NOAA) National Climactic Data Center.

	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
Dover	79	60	69	49	59	40	47	31
Georgetown	78	59	68	47	58	39	48	30
Lewes	79	63	69	52	59	43	49	34
Milford	78	57	68	46	58	37	47	29
Newark	80	57	69	45	58	36	46	28
Wilmington	77	58	66	46	56	37	45	29

is highly recommended to help reduce heat loss by convection thus maintaining higher temperatures within the high tunnels. Overhead irrigation using micro sprinklers prevents frost damage. It is important to remember not to irrigate before cold spells as water stress enhances frost tolerance.

What about pests in fall? Although most major pests have cycled out by the fall season, the relatively warmer temperatures in the high tunnels can be a hub for pests and they can thrive and need to be managed. When using biological control, avoid using chemicals. Put in place yellow and/or blue sticky cards just above the plants to monitor pests. Keep up with good sanitation in the high tunnels, removing weeds and diseased or unwanted plant material.

Ms. Ogutz is with the Delaware State Univ. From **Weekly Crop Update**, Univ. of Delaware Extension, Vol. 22, Issue 27, September 27, 2014.



R Ogutu



R Ogutu

High tunnels make a difference. Inside and outside the high tunnel in Hartly Delaware on Oct15, 2012

### Tips for Managing Your High Tunnel in the Fall

Avoid over-applying nitrogen. High N-levels keep plants soft and less hardy. Various stresses and health conditions can also lessen hardiness.

Beware of extreme cold forecasts. Roll down the high tunnel sides and make sure your high tunnel is not letting in cold fronts. The use of floating row covers and hoop supported row covers

Table 2: Suggestions for high tunnel fall and winter production

Crop		Approximate harvest times and harvest frequency	Preferred varieties* proven to meet the thresh-hold damage temperatures and additional comments
Arugula		Every 3 weeks	-Var. 'Sylvetta' -Cooler air temperatures below 35°F slows growth
Beets	Seed as early as Feb 15	April	-Var. 'Early Wonder Tall' -Seeds need soil temperatures of 60 - 65°F to germinate
Broccoli	Transplant by Mid to late October		
Cabbage	Transplant by Mid to late October		
Cauliflower	Transplant by Mid to late October		
Collards			Var. 'Champion', 'Vates'
Spinach	Directly sow by late October	Harvest weekly over a 6 week period	Var. 'Space'
	Directly sow by mid-October	Lasts till April	
Carrots	Directly sow by Early to Mid-October	January	-Var. 'Napoli' can overwinter, varieties 'Sugar snap' and 'Bolero' hold up well
	Seed as early as Feb 15	April	-Very unique flavor develops due to the slow growth by the cool temperatures that concentrates sugars
Miscell. - baby lettuces and greens mixes	Directly sow October through November (3 weeks to harvest)	Recut weekly	Transplant production for late fall and late winter
	Directly sow by December	3 weeks between cuttings	Cooler air temperatures below 40 F slows down growth
Scallions	Directly sow by October	January	
Brussel sprouts	Transplant by Mid to late October		
Leeks	Transplant by Mid to late October		
Kale	Transplant by Mid to late October		Var. 'Red Russian' and 'White Russian', Toscana, 'Winterbor', 'Wild garden Kale'
Gartic	Plant cloves by late October	Mid to late June	Var. 'Mchadizauri', 'German white', 'Romanian Red',

## GENERAL

## Winterizing Your Drip Irrigation System

William Lamont

The changing of the color of the leaves and the advent of falling temperatures at night along with pumpkin, broccoli, potato and apple harvest signals to me that cooler weather is just around the corner. Having worked many years with irrigation systems and drip irrigation systems in particular, I thought that this would be an appropriate time to share with you some tips on winterizing irrigation systems so that your system will be ready for next spring.

Protect the investment you have made in your drip irrigation system by protecting it from winter damage.

Drip irrigation systems all use valves, filters, plastic fittings, PVC pipe, poly pipe, or layflat hoses that can easily burst if water freezes inside any of these components. I know this from personal experience and it can drive you crazy. This can prove costly to replace or repair.

Winterizing a drip irrigation system will take about fifteen minutes to an hour, and is best done before the first freeze. A little of your time spent now will result in a low maintenance irrigation system that will reduce the need for replacing frozen parts. In extremely cold winters, freezing temperatures can severely damage your irrigation system and all the main water lines.

The goal in winterizing your drip irrigation system is to shut off the water supply to the system, and flush all of the water that is left in the system from the backflow device, valves, filters, main lines, sub-lateral lines, sprinklers, drippers, and drip line. One way to make sure that the system will not freeze (flat terrain) is to install automatic drain valves in the lowest point of the system. The drain valve assures that any water in the line will drain out. This is extremely important. Also in a drip irrigation system, I like to run some choline (2 PPM) through the system and then flush it out thoroughly to clean everything up before storing it for the winter. That way it is ready to be used again next year.

About the parts of the irrigation system:

**Pumps** - Always drain a pump by opening the lowest plug or drain outlet (replace with drain valve). Make sure to check that no water is left inside. Drain plugs usually are extremely difficult to remove, not to mention difficult to get to, making an unpleasant project out of a simple task. For some of our portable drip irrigation trailer units (engine and pump located on a trailer) and with drip irrigation systems fed from a pond or a stream, drain the suction line. That is pull it out of the water, drain it and cover the open ends to prevent creatures from making it a winter home. I have experienced that also and it needs to be avoided. Also the open end of the pump where the suction line connects needs to be covered so that rocks, pebbles, nutshells, leaves, and animals from mice to snakes can find their way into the impeller. Simply covering open ends will save time and headaches. Again I speak from personal experience.

**Valves and Valve Assemblies** - I also know from years of experience that gate and ball valves will not tolerate freezing. A gate valve, when closed, traps water in the bonnet. A ball valve holds water inside the ball. If the valve is closed when water is in the line and the line is drained without opening this valve, the water trapped above the gate or inside the ball will freeze and have no place to expand. The signs of freezing are very distinctive: a ball valve will burst the side out, and a gate valve will split its bonnet, packing nut, or have a hairline crack down its side.



Take my word for it that replacing a three-inch brass gate valve is not cheap.

Solenoid valves are best winterized by leaving them open for the winter. The manual bleed lever on the valves varies by model and manufacturer, but is usually a thumb type screw on top of the valve or lever on the side of the bonnet (cover).

Automatic control valves such as pressure reducing, pressure relief or combination valves, containing external control tubing, pilots, and other parts will require special care to thoroughly drain. If the entire unit can be

easily removed from the pipe, I would recommend storing the unit in an inside location for the winter. This is the method that I prefer after years of winterizing systems. If removing the valve or valve assembly is not practical, then from the pressure-reducing valve remove the control tubing connections in the lower part of the valve to drain all the parts of water. The valve bonnet should also be loosened or removed to remove all the water from the top of the diaphragm by loosening the screws on the top of the bonnet.

Valve assemblies such as battery operated controllers or AC valves with filter, pressure regulator, and swivel adapter; also require special care to thoroughly drain. If the entire assembly can be easily removed from the pipe, it may be simple to store the assembly unit from the controller to the pressure regulator in an inside location for the winter. If removing the filter assembly or valve assembly is not practical, the valve bonnet should be loosened or removed to remove all the water from the top of the diaphragm, the filter cap should be removed from the filter, and remove the filter cover and screen to make sure that no water is left inside any part of the assembly.

**Drip Tape** - First disconnect the drip tape from the laterals and in most cases it is disposed of as it is considered an annual expensed item. When Plastofuel finally becomes a reality it will become a feedstock for Plastofuel, which is then burned at 2000 degrees F and will create electricity.

**Poly Pipe Hose and Vinyl Layflat Hose** - Poly pipe and layflat hose have to be drained. Layflat or poly pipe hose can be lifted a few feet at a time and section-by-section, making sure that any water left in the hose will drain out. After you finish draining the layflat hose or poly pipe hose and the micro tubing or connectors, make sure to close the ends of the hoses using the hose ends. The layflat hose definitely is easier to roll up than the poly pipe hose, and can even be automated on a spool.

### Summary

The best prevention I have found once the system is drained completely is to take those parts of the system that are prone to damage inside a building. That is the nice thing with our trailer mounted portable pumping and filtering units used at the Penn State Horticulture Research Farm, which can be drained and then moved into a building for storage during the winter. The vinyl layflat hose or poly pipe hose with connectors is cleaned up and rolled up and stored so the mice and rodents will not bother it. Hopefully you are then all set to kick your feet up by the woodstove and know that your irrigation system is ready for winter storage and use again in the spring.

*Dr. Lamont is with the Department of Plant Science at Penn State Univ. From the **Vegetable, Small Fruit and Mushroom News**, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, October 23, 2014.*

## BERRY PRODUCTION

## Continued Success with Strawberries at Pallman Farms

John Esslinger

Pallman Farms is located in Clarks Summit, Pennsylvania, just outside Scranton, which is in plant hardiness zone 6a. They raise direct marketed turkeys, grow 10 to 12 acres of pick your own strawberries and wholesale tomatoes. They have been gracious hosts to many Penn State research plots over the years. Much of the late Dr. Cyril Smith's vegetable soil fertility work was done on their farms in the 1980s and 1990s. More recently Berry Specialist Kathy Demchak has conducted both strawberry herbicide and black root rot trials on the farm.



Pallman Farms is a family farm currently run by Bruce and Brian Pallman. Their brother Rich is now officially retired from the farm but still helps out on occasion. Bruce and Brian each have a son, Doug and Craig, respectively, which are involved in the operation. Doug and Craig also own Summit Harvest, a wholesale tomato repacking and distribution business.

In a recent conversation, Brian and Bruce Pallman spoke about their strawberry operation and how the research done on their farm has impacted the operation. Here is what they had to say.

### What do you do to manage weeds?

We basically follow the rates and timing developed from Kathy Demchak's plot on the farm. We use Devrinol, Sinbar, and 2,4-D. We like to use Chateau when there is winter annual weed problems. It has worked better on our weeds than Goal used to work on them. We have some hand weeding done to clean up any weeds the herbicides missed.

### Has the root disease situation improved?

Our problem is that our crop rotation is limited by the amount of land that we have to grow strawberries and our soils are on the heavier side. We like to rotate out of strawberries for 3 or 4 years but we can't always do that. The root disease problem is getting better. We are using some Prophyte (one of the products Kathy evaluated in the root disease trial) to help keep the plant healthy. Changing the direction of our rows to allow free water to run off has helped also. We also had a hard time covering the uphill side of the row when we cultivated. Changing the direction of the rows allows us to do a better job of keeping soil around the crowns. We have to be careful not to get erosion so we keep the fields relatively small and use straw mulch.

### Have the two spotted spider mites been a problem?

We have not had a mite problem in the last few years. We did not use any miticide at all this year. We think changing cultivars helped. The mites seem to have liked the Honeoye when we grew them.

### What cultivars are you using?

We still like Mira. It renovates well for us. It gives good yields and is a good tasting berry. We also like Brunswick. It renovates a little better than the Mira but we think the Mira fruit quality is better. They both work well for us. We try new varieties every year. We tried AC Wendy and it was OK. Still, we like our Mira better. This spring we planted some Rubicon. The plants look good so far and we look forward to see what the fruit is like.

We wanted to plant some Flavorfest but the plants were not available when we put our order in. We'll try to get some for next spring. How a plant renovates is important to us because we lose so many plants over winter.

### What is your fertilizer program?

We put on what the Penn State soil test recommends. We put on a small amount of nitrogen in the spring, about 20 pounds per acre. We feel it helps get the plants off to a good start. We do not use any foliar fertilizers.

### How is marketing of your PYO strawberries going?

We are getting more people every year. Picking strawberries has definitely turned into a family event. We open at eight in the morning. The first two hours of the morning we have people that come to pick volume. The kids come from 10 in the morning to 4 in the afternoon. These are families that come as much for an experience as for the berries. They get a hayride to and from the field and buy a few berries.

We had a challenge this year because the berries were late and the size was a little smaller due to the weather. When we did open the people were almost uncontrollable. They were worried that we would run out of berries. We raised our prices this year. We now charge \$5.25 for already picked quarts and \$2.35 a pound for PYO. We give a \$.20 a pound discount if the person buys 20 pounds or more. We had to increase our prices to cover our costs. It was starting to catch up to us. You can go on the internet and find growers with lower prices but we can't do it for less in our area. We had very few complaints about the price increase. We discussed having a cover charge but decided not to go that route.

We have a website and Facebook page. Our website is [www.pallmanfarms.com](http://www.pallmanfarms.com). We attribute our increase in volume of customers to social media.

### What does the future hold for Pallman Farms?

The berries look good this fall. Our acreage will be the same. We anticipate 2015 being a good year.

Well, Bruce and I are going to be 65 in January. We are looking to slow down a little. The plan is that Doug and Craig are going to take over the farm and keep it going. They have expanded the retail area of the farm to include a frozen strawberry drink and in-season produce from some of their neighboring farms.

*Mr. Esslinger is with Penn State Extension in the Central Susquehanna Counties. From the **Vegetable, Small Fruit and Mushroom News**, Penn State Extension <http://extension.psu.edu/vegetable-fruit>, October 23, 2014.*

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