

PENNSYLVANIA  
VEGETABLE GROWERS

# NEWS

for the commercial vegetable, potato and berry grower

February 2018 / Volume 40 Number 2

## Celebrate National Ag Day by Visiting Your Legislator



Tuesday, March 20, is National Ag Day, a day set aside by the Agricultural Council of America to highlight to the public the vital role agriculture plays in our society. PVGA is urging its members to celebrate Ag Day by making plans to visit their state and federal legislator's office to discuss the Association's priorities for 2018. Copies of the Association's state and federal priorities are in the center of this newsletter.

The Pennsylvania General Assembly is not in session that week, so state legislators may be available for appointments in their local offices that week. It isn't so important to make the visit exactly on March 20th, but make it a point to schedule an appointment with your legislator either that week or sometime this spring (before you get any busier!) to go over the priorities with him or her.

If you want to team up with some neighboring growers to go as group, that is even better. If one of your farms has a market, greenhouse or high tunnel in operation now, you might want

to invite the legislator to come visit your market or farm. If you visit your legislator in his office, you might also consider inviting him to your farm or market later in the year like July or August when the General Assembly recesses for the summer.

You as a grower taking the time to visit your legislator gives him or her the opportunity to personally meet you and understand how government decisions can hurt or help your business. If they have met growers in person and are familiar with their businesses, they are more likely to be conscious of how their decisions can affect your business when they are deciding how to vote on different issues.

While personal visits are the ideal, if you can't find time to visit, at least mail a copy of the Associations' state or federal legislative priorities to your state and federal legislators. Just a short handwritten note explaining that you are a PVGA member and asking that your legislator keep PVGA's priorities in mind would be a big help in making our legislators aware of the industry's needs. If a legislator gets one copy of the Association's priorities from a voter in his or her district, it will have more impact than the same set of priorities mailed from the PVGA office. If they get copies of the priorities from several growers in their district, it will have an even greater impact.

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## Kenneth Martin Receives 2018 Annual Award

Kenneth Martin of Furman Foods received the 2018 PVGA Annual Award at the Fruit and Vegetable Growers Banquet at the Mid-Atlantic Fruit and Vegetable Convention in Hershey on January 30. PVGA Annual Award is given each year to someone who has built an outstanding record of service and dedication to the Association and/or the vegetable, potato or berry industry in Pennsylvania. PVGA President, David Miler, made the presentation.

Martin grew up in Blue Ball and attended Garden Spot High School. On his 16<sup>th</sup> birthday his family moved to Union County where he worked on this father's farm where they grew some vegetables as well as operating a greenhouse for flowers and vegetable plants. After farming several years, he began working at Zimmerman's Irrigation and while there was instrumental in the establishment of the Buffalo Valley Produce Auction in Mifflinburg where he served as manager for several years.

In 1989, Ken started working in the field department for Furman Foods in Northumberland, contracting with local growers to produce processing tomatoes. Over the years he has traveled thousands and thousands of miles visiting growers



*Kenneth Martin (center) with PVGA President David Miller (left) and Secretary of Agriculture Russell Redding*

not only in Pennsylvania but also New Jersey and Maryland throughout the growing season helping them work through the

(continued on page 2)

## NEWS



### **Pennsylvania Vegetable Growers Association**

An association of  
commercial vegetable,  
potato and berry growers.

President

**Jonathan Strite '19**

Harrisburg

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**Brian Campbell '21**

Berwick

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**Peter Flynn '21**

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**Christopher Harner '20**

State College

**Barron Hetherington '19**

Ringtown

**Alan Kemmerer '19**

Berwick

**David King '19**

Bakerstown

**Kenneth Martin '20**

New Berlin

**Amy Metrick '21**

Butler

**Michael Orzolek '21**

State College

**Christopher Powell '20**

Strasburg

**John Shenk '20**

Lititz

**Robert Shenot '19**

Wexford

**Jeffrey Stoltzfus '20**

Atglen

**Mark Troyer '21**

Waterford

**Timothy Weiser '19**

York Springs

Executive Secretary

**William Troxell**

Richfield

### **Kenneth Martin Receives... (continued from page 1)**

various challenges they face each year with varieties, diseases, insects and harvest schedules. He currently is the Director of Ag Operations for Furmano Foods, as the company is now known.

In 2002 Martin was elected to the PVGA Board of Directors and from 2008 to 2009 served as president of the Association. Early on he took a keen interest in developing the tomato educational program for the Convention and has served as the program chair for those sessions for many years.

One of Ken's frequent questions at Board meetings for a season was "Who's driving the bus?" to emphasize the need for someone to take the initiative in putting a new idea into action. And to his credit he has been willing to "drive the bus" on several key issues. Since the Association's strategic planning project in 2014, he has served on the PVGA Capacity Development Committee that is working to prepare the Association to develop a greater staff capacity to better serve the growers of Pennsylvania.

He also represents Furmano Foods on the Penn State Ag Council where he serves on the Board of Directors and is currently chairman of the Program Committee. He has worked with closely with Penn State researchers and extension educators in helping them meet the needs of his tomato growers.

Martin says the guys at the local coffee shop call him the "Tomato King" - but don't offer him a fresh tomato to eat because he doesn't like them! In reality he is very knowledgeable on processing tomato production after working with growers for nearly thirty years. He annually attends the national Tomato Disease Workshop to keep abreast the latest in disease control developments and also serves on the Northeast IPM Working Group.

Outside of his professional career, Ken and his wife Dawn are the proud parents of a son and two daughters, one of whom is married and made them even prouder grandparents of a 2 ½ year-old grandson.

He is a member of Buffalo Mennonite Church and volunteered weekly at the Lewisburg Federal Penitentiary for nearly 30 years sharing Jesus with the inmates. In 1996 he was awarded the US Department of Justice Volunteer of the year award. Over those 30 years he also, along with his wife, volunteered weekly at Muncy State Correctional Institution. Ken also serves on the board of GuideSprings, a nonprofit organization helping those disconnected from themselves, from others, and from God move toward renewal.

For this longstanding record of extraordinary leadership, service and dedication to the Association and to the tomato industry of Pennsylvania, the Pennsylvania Vegetable Growers Association is pleased to present its 2018 Annual Award to Ken Martin.

### **Celebrate National Ag Day... (continued from page 1)**

When you are calling to make an appointment, if your legislator is not available but a staff person is available, go ahead and take the time to meet with the staff person. Staff people are often the ones who brief the legislators on what their constituents are saying to them on a particular issue, so getting PVGA's priorities and your farm's story before a legislative staff person is equally important. This is particularly true for federal representatives and senators who have more constituents and also larger staffs.

Remember to visit at least one of your five legislators: your state representative, your state senator, your federal representative and/or Senator Robert Casey or Senator Pat Toomey. To find your local legislators and their offices, consult your local telephone directory's blue or government pages, go to <http://www.legis.state.pa.us/> or call PVGA at 717-694-3596.

We would greatly appreciate if you could let PVGA which legislators you have contacted. Please send us an email at [pvga@pvga.org](mailto:pvga@pvga.org), call us at 717-694-3596, or fill out slip on the back page of the newsletter and mail it to us.

Members of the PVGA Board of Directors will be meeting with selected state legislators on Tuesday, March 13, when the legislators will be in Harrisburg. The last several years the Board has made a point to schedule several appointments with urban members of the Agricultural and Rural Affairs Committee to help them better understand PVGA member's needs.

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The Pennsylvania Vegetable Growers News is the official monthly publication of the Pennsylvania Vegetable Growers Association, Inc., 815 Middle Road, Richfield, PA 17086-9205  
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.

## NEWS

## PVGA Members Elect Directors, Amend Constitution and Adopt Policies



*The PVGA Board of Directors (left to right - front row) David King, Michael Orzolek, Robert Shenot, Jeffrey Stoltzfus, (middle row) Rita Resick, Robert Amsterdam, Brian Campbell (back row) David Miller, William Reynolds, Kenneth Martin, Jonathan Strite, Christopher Harner and Mark Troyer. Not pictured: Peter Flynn, Barron Hetherington, Alan Kemmerer, Amy Metrick, Christopher Powell, John Shenk, and Timothy Weiser.*

The General Membership of the Association held their Annual Meeting on January 31, 2018, at the Hershey Lodge and Convention Center during the 2018 Mid-Atlantic Fruit and Vegetable Convention. The results of the mail balloting for the election of six Association Directors were announced. The members voted to amend the Constitution as recommended by the Board of Directors. They also adopted additions to the Association's Policy Resolutions besides receiving reports on the Association's activities for the year.

### Three New Directors Elected to Board

Amy Metrick of Butler and Peter Flynn of West Chester were elected to their first terms on the Board of Directors along with Robert Amsterdam of Mechanicsburg, a former Director, who elected to the Board again. Incumbent Directors Brian Campbell, Michael Orzolek and Mark Troyer were also elected to three-year terms on the Board. The new Directors replace Eric Oesterling of New Alexandria, Thomas Strzelecki of Peckville and Randy Treichler of Three Springs, all of whom chose not to see re-election. Patrick Flanley of Zionsville, Aubrey Hanford of Lebanon, and Dale Whitenight of Danville had also been nominated as Directors but were not elected.

Until 2012, members of the Board of Directors were elected by the members attending the Annual Meeting. Since only about 30 to 50 members typically attend the Annual Meeting, it was hoped electing the Directors by a mail ballot would encourage greater participation in the election process, which it has. This year there were 165 ballots cast by members. This year's ballots were counted by election judges Robert Shenot, Arthur King and Beth Gugino.

Brief biographies of the newly elected Directors are as follows:

Mark Troyer - Mark owns and operates Troyer Growers in Waterford, Erie County, consisting of 1,600 acres of grains and 400 acres of potatoes for processing and chips. He is a board member and past president of the Erie County Farm Bureau as well as chairman of the Pennsylvania Potato Research Board.

Robert Amsterdam - Rob been a member of PVGA since the early 1980's and worked with the organization in many capacities beginning as an Ag Econ graduate student at Penn State. Over the years he has worked in the produce industry in various capacities including selling to the wholesale trade for several Pennsylvania growers. He is currently employed by Feeding America as a Regional Fresh Produce Sourcer, working with Pennsylvania growers to acquire excess produce that is perfectly edible but not marketable for distribution by our local, regional and national network of food banks.

He previously served on the Association's Board of Directors from 1994 to 2014, including 8 years as a member of the executive committee and he remains an active participant on PVGA committees, including the Capacity Development Committee. In addition to PVGA he has also served as a board member of the Pennsylvania Farmers Union, the Keystone Agricultural Innovation Center and the Fruit & Vegetable Inspection Association of Pennsylvania. He was briefly the manager of Food Routes Network (the national Buy-Fresh Buy-Local Campaign) and member of the stakeholder advisory committee for the Delaware Valley Regional Planning Commission Food System Study.

Brian Campbell – Brian is a fresh market grower in Berwick, Columbia County, who was first elected to the Board in 2007. He specializes in sweet corn, pumpkins, broccoli, lettuce, and other crops which he ships in wholesale quantities. He also

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# NEWS

## PVGA Members Elect... (*continued from page 3*)

operates a roadside farm market which he started when he was 14 years old. A 1990 graduate of Penn State University, he and his wife have two daughters and a son. He is currently First Vice President as well as a Past President of the Association and chair of the Educational Committee.

Peter Flynn - Pete began dairy farming on the Jones's farm, now the current site of the Bayard Rustin High School, in 1986. In 1989 he planted sweet corn on one-eighth of an acre and sold his harvest from the back of his pick-up truck. Deciding to concentrate solely on growing produce, he sold his cows in 1992 and opened his first stand. In 2000, Pete moved his operation to Westtown School. Built on 170 acres of the school's land, the large farm stands on the north side of Street Road/Route 926 and grows some of the finest produce in the area. Pete, an active board member of the Chester County Food Bank, designates roughly 5 acres of land to grow for the less fortunate members of our community. In 2014, that 5 acres yielded approximately 120,000 lb. of fresh produce for the Chester County Food Bank. Customers and local chefs from all over the region travel for miles to purchase Pete's produce.

Amy Metrick- Amy is part of Metrick's Harvest View Farm and Market along with her parents Ken and Cathy Metrick and her sister Laura in Butler County. They farm 50 acres of vegetables and apples that they sell at their retail farm market on the farm. The family also runs a greenhouse in the spring, a CSA from June through November and a cider press from September through December. Amy graduated from Pennsylvania College of Technology with an associate degree in ornamental horticulture plant production and a bachelors in business management in 2014. She currently works for Penn State Extension as the Butler County 4-H Educator. Amy is a member of the Butler County Farm Bureau, Butler Farm Show and Mt. Chestnut Presbyterian Church.

Michael Orzolek - Mike is Professor Emeritus of Vegetable Crops in the Department of Plant Science at The Pennsylvania State University. Before his retirement in July 2012, he had a three-way appointment – 60% extension, 22% research and 18% teaching. Since his retirement he has kept active conducting applied field research and moved his office to the Horticulture Research Farm at Rock Springs. After retiring from Penn State, Mike began employment with Stoller USA, as Director of Research and Development for Horticultural Crops. He had conducted extensive research on stand establishment, plastic mulches, high tunnels, weed management and tillage systems. Dr. Orzolek formerly was Extension Vegetable Specialist at the University of Delaware (1974-81). He received his B.S. in Biology from Alliance College, his M.S. in Horticulture from West Virginia University, and his Ph.D. in Horticulture/Botany from the University of Maryland.

### Constitution Amended

While the mail-in ballot election process has resulted in greater member participation, it can result in certain areas of the state or groups within the membership not being represented on the Board. Accordingly, last year the members amended the Constitution to allow the Directors to appoint two "at-large" members of the Board to insure that there is diversity on the Board in terms of gender, geographical representation, industry segment and expertise. After further reflection on this change, the Board this year asked the members to further amend the Constitution to allow them to appoint one Director each year

ensure that diversity factor on the Board. The members approved this change at the January 31 meeting.

Since implementing this amendment will result in the Board of Directors having 21 members for 2018, the Board further proposed that beginning with the election for 2019, the members will only elect five Directors instead of six. This will result in the total number of Directors gradually returning to 18. The members also approved this recommendation.

### Eighteen Policy Resolutions Adopted

The Association's members unanimously approved the following Policy Resolutions that will be added to the Association's existing resolutions. These resolutions set forth the Association's positions on various current issues. (Underlined text is to be added.)

#### **State Issues**

1. Supporting requirements that companies that receive state grants for the purpose of building, expanding or updating an agricultural processing plant use a minimum of 25% Pennsylvania agricultural products when available.
2. Supporting amendments to the Retail Food Facility Safety Act to require proprietors to obtain only one food market stand license, rather than multiple licenses for each farmers' market attended.
3. Supporting the expansion of the Red Tag permit program to allow two permits per-parcel per-hunter statewide.
4. Supporting antler restrictions for senior and lifetime license holders that require two or more points on one antler or a spike three or more inches in length.
5. Supporting the elimination of white-tailed deer antler restrictions in CWD Disease Management Areas.
6. Supporting amendments to the vehicle code to authorize issuance of annual permits to a Commercial Motor Vehicle and a non-Commercial Motor Vehicle authorizing the movement on highways for all agricultural commodities and agricultural related equipment, which exceeds the maximum vehicle gross weight specified in Title 75, Chapter 49, Subchapter C (relating to maximum weights of vehicles). The weight of any vehicle permitted may not exceed 95,000 pounds overall gross weight and the weight on any non-steering axle may not exceed 21,000 pounds.
7. Supporting an exemption for any farm licensed or farm stick-erred vehicle from the road weight restriction within the 50-mile farm radius.
8. Supporting the reduction of the maximum period for review and approval for nutrient management plans and the Department of Environmental Protection agricultural permits from 180 days to 90 days.
9. Supporting a farm survey, similar to that conducted by Penn State University for the Chesapeake Bay watershed, for other watersheds in the state to capture Best Management Practices that have not been cost shared to be credited to water quality improvement.
- 10 Supporting a restriction on township riparian buffer ordinances that would prohibit them from requiring streambank buffers greater than 35 feet or requiring that buffers be completely forested.
11. Supporting the exemption of structures used for growing crops in the field, such as low tunnels, high tunnels and greenhouses where crops are grown in the soil and no per-

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## NEWS

## Three PVGA Scholarships to be Offered for 2018

The Pennsylvania Vegetable Growers Association is pleased to able to offer two Rudolph Grob Memorial Scholarships each year to a child or grandchild of a PVGA member who is pursuing higher education with the goal of working in production agriculture. For 2018, three scholarships will be available since only one scholarship was awarded in 2017.

The Association gives the annual scholarships in the amount of \$1,000 in memory of Rudolph Grob of Millersville who served the Association for 50 years as a Director, 20 years as Secretary Treasurer and for over 20 years as manager of the Association's Farm Show Booth. Mr. Grob was a horticulture graduate of Penn State University who was employed for many years at Funks Farm Market in Millersville. The funds for the scholarships are generated by a portion of the interest earned by the Association's Keystone Fund, an endowment-type fund created by the voluntary extra dues paid the Keystone Members of the Association.

The purpose of the scholarships is to assist children and grandchildren of Association members in obtaining a degree that will enable them to pursue a career in the vegetable, potato or berry production industries. Applicants must meet the following criteria:

- be the child or grandchild of an Association member who has been a member in good standing for at least one year

- be enrolled in a two-year or four-year degree program;

- be in good academic standing; and

- be intent on pursuing a career in the vegetable, potato, or berry production industries.

Applications are now being accepted for the 2018 scholarships. The deadline is March 31, 2018. Applications are reviewed by the Association's Scholarship Committee which determines who receives the scholarships. The current committee members are: Carolyn Beinlich, Keith Eckel, Curtis Kaelin, Michael Orzolek and Hilary Schramm, Jr.

The \$1,000 scholarships are awarded for a one-year period. Recipients may apply for a renewal although preference will be given to other qualified students over previous recipients. It is not a need-based scholarship. Payment of the funds is made directly to the institution.

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## PVGA Members Elect... *(continued from page 4)*

- manent changes have been made to soil or topography of site, from state storm water regulations.
- 12. Supporting the development of Best Management Guidelines by the Department of Environmental Protection and agricultural organizations that would allow farmers to maintain and improve drainage lines to protect the use of farmland without requiring of costly permits, delays and engineering costs.
- 13. Opposing the required metering of private wells and gravity-flow systems by government and all other agencies or organizations."
- 14. Supporting the establishment by the Department of Transportation of an online and paper no-spray registry for roadside state spraying.
- 15. Supporting a requirement that persons bringing emotional support and/or service animals into facilities where pets are not otherwise allowed have the need for the emotional support and/or service animal certified by a medical professional.

### Federal Issues

- 16. Supporting changes in the regulations for Commercial Drivers Licenses (CDL) that would make CDL Medical Card anniversary dates coincide with the card holder's birthdate.
- 17. Supporting the exemption from registration for farmers using drones in their own farm business.
- 18. Supporting the ability of farmers to update and maintain on-farm management plans utilizing current soil and manure samples that would eliminate the need to rewrite NRCS 590 Nutrient Management Plans every three years.

Before approving the resolutions, the members also voted to advocate for concurrent antler and antlerless seasons across the state in recognition of the extensive deer damage in many areas.

### Reports Given

The members also received the year-end financial reports which showed a balance of \$245,543 in the General Fund, \$156,598 in the Keystone Fund and \$21,610 in the Onion Committee Fund. Robert Amsterdam reported on the work of

the Capacity Development Task Force which is looking at how the Association can add additional staff capacity. He noted that the Board has approved the Association applying to become a 501(c)3 organization that would be able to receive tax-exempt contributions. President David Miller reported that Board had recently created a Berry Committee and Potato committee to advise the Board on how the Association can best meet the needs of those industries. Past President Robert Shenot noted that a Rudolph Grob Memorial scholarship had been awarded to Carville Mace. Peter Salerno III was introduced as the recipient of the second PVGA Young Grower Award.

Secretary-Treasurer William Reynolds reviewed the budget adopted by the Board of Directors which anticipates \$479,900 in income and \$490,600 in expenses in the General Fund. He noted that membership was 802 after the second day of the convention, down from last year's record second day membership of 861. Last year's membership at the end of the year was 1,064, a new record in recent history. Sales at the Farm Show Food Booth were \$208,989, just slightly more than last year's sales.

Educational Committee chairman Jonathan Strite reported that convention attendance was at 1,092, down from last year's record attendance as of the second day of 1,151. Regional educational events are being planned for the summer along with continuation of the newsletter, website and email updates as the Association's communications to members. Government Affairs Committee chairman Brian Campbell reported that legislative visits are being planned for March 13. Vegetable Research Committee chairman Scott Hoffman reported the Vegetable Marketing and Research Board that evening to select research projects to fund for 2018. The Association budgeted up to \$60,000 for these projects.

Dr. Francesco Di Gioia who was recently chosen to fill the vegetable research and extension position at Penn State University was introduced and welcomed to Pennsylvania.

The members observed a moment of silence in memory of the following members and friends of the Association who had passed away: Mary Beard, Stan and Nona Brown, Roy Brubaker, Greg Forejt, Betty Miller and Robert Trax.

## NEWS

## Directors Elect Strite President, Invest Keystone Monies



PVGA Officers for 2018 (left to right) Dave Miller – Past President, Bill Reynolds – Secretary-Treasurer, Rita Resick – Second Vice President, Brian Campbell – First Vice President, and Jon Strite - President.

The Association's Board of Directors elected Jonathan Strite as the President of the Association at a special meeting held immediately after the Annual Meeting of the General Membership on January 31, 2018. At their regular meeting on January 29, 2018, in Hershey, the Board voted to invest \$100,000 of the Association's Keystone Fund with the Stifel Nicolaus investment firm in an effort to earn more interest to be

used for scholarships and research.

Also elected were Brian Campbell of Berwick as First Vice President, and Rita Resick of Somerset as Second Vice President. William Reynolds of Waynesboro was re-elected as Secretary-Treasurer. While at least three other women have served as PVGA Directors, Resick is the first woman to serve as an officer of the Association. Officers are elected by the Board of Directors each year to one-year terms. By tradition, the President and Vice Presidents are elected to two one-year terms with the Vice Presidents moving up to the

next higher office after two years. David Miller of York, who served as President in 2016 and 2017, assumed the office of Past President. The Past President sits on the Executive Committee with the other four officers and is chairman of the Leadership and Recognition Committee which nominates candidates for Directors and officers.

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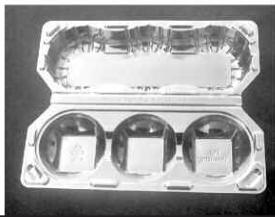
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## NEWS

### **Directors Elect Strike... (continued from page 7)**

Mary Heltzel, the First Vice President for investments at Stifel Nicolaus and Company, reviewed her investment strategy that has earned good returns for other organizations similar to PVGA with a conservative risk exposure. After considerable debate, the Board voted to invest \$100,000 of the Keystone Funds with Stifel. The remainder will be kept in the existing bond fund and money market accounts. At the end of the year, the total value of the Keystone Fund was \$156,598.

The Board adopted a budget for 2018 that anticipates \$479,900 in income and \$490,600 in spending. The budget has a projected deficit of \$10,700 and allocates a potential total of \$74,000 for research - \$60,000 for vegetable research and \$14,000 for small fruit research – although not all the small fruit research funds are expected to be used.

Even with the projected deficit, the budget leaves a projected General Fund balance of \$234,800 at the end of the year, well above the target level balance of \$165,600. The Association purposely maintains a sizeable balance in the General Fund to enable it to self-insure itself against unexpected decreases in revenue. Bad weather during the Farm Show or Convention can significantly decrease the income in any given year but the General Fund reserves will enable the Association to maintain its support for research, promotion and other activities even though income may be lower than expected.

Four years ago the Board had committed \$8,000 annually for five years to a multi-state project on high tunnel berry production funded by a Specialty Crop Research Initiative grant.

### **Three PVGA Scholarships...**

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The following items must be included with a completed application form:

- A copy of the most recent academic transcript.
- Two letters of reference from someone outside of the immediate family.
- A typed essay (approximately 500 words) on one of the following topics:
  - Describe the biggest issue that has faced the Vegetable/Potato/Berry Industry in Pennsylvania in the last five years or that the Industry will face in the next five years and how you plan to deal with this issue in your future career, or
  - Describe your previous experiences with the Vegetable/Potato/Berry Industry and the role you hope to play in the Pennsylvania Vegetable/Potato/Berry Industry upon graduation.

Applications must be received or postmarked by March 31, 2018, and are available by contacting PVGA at 717-694-3596 or [pvg@pvg.org](mailto:pvg@pvg.org). The application is also available on the website at <https://www.pvg.org/services/rudolph-grob-memorial-scholarship/>. The committee may request to interview the applicant in person or by telephone as well as contact college or school advisors and/or references. If you have a child or grandchild in college, encourage them to apply for the scholarships.



The project includes researchers at Penn State University, Michigan State University, Cornell University and others. PVGA's contribution is part of the required industry matching funds required by the grant program. No other small fruit research proposals were received this year.

The Association's \$60,000 vegetable research allocation, will be added to the \$20,000 in assessment dollars allocated for research by the Pennsylvania Vegetable Marketing and Research Program for a total of \$80,000 available for vegetable research funding. The proposals received requested less than the \$80,000 available although the Vegetable Marketing and Research Board voted to consider proposals from Dr. Francesco Di Gioia after his arrival at University Park anticipated in May, 2018.

In other action, the Board:

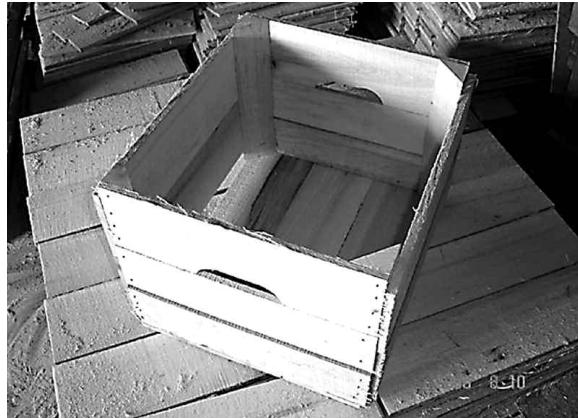
- approved the December meeting minutes and the year-end financial reports;
- approved the audit report from Mary Ann Lindner on her review of the financial records for 2016;
- reviewed the Specialty Crop Block Grant concept paper submitted that would allow the Association to work to assist growers in obtaining H-2A labor;
- approved state and federal legislative priorities for 2018;
- received reports on the Farm Show Food Booth, Simply Sweet Onion program and various other issues.

The next meeting of the Board will be held on Wednesday March 15, in conjunction with the Association's Legislative Visitation Day in the Capitol in Harrisburg.



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## NEWS

## 2018 Convention is Another Success

The 2018 Mid-Atlantic Fruit and Vegetable Convention continued the tradition of offering fruit and vegetable growers throughout the mid-Atlantic states a first-rate, three-day educational conference with a large industry trade show. About 1,015 persons registered with PVGA for the three-day event. With over 300 speakers and guests, the attendance for the vegetable portion of the Convention was more than 1,315. That number is less than last year's record attendance of 1,448 but still better than any other year except last year. About 820 fruit growers from Pennsylvania, Maryland, New Jersey and Virginia plus 400 exhibitor representatives put total attendance at over 2,500.

The Convention was attended by persons from Massachusetts, New Hampshire, Connecticut, New York, Delaware, West Virginia, North Carolina, Tennessee, Ohio, Indiana, Michigan, Iowa and Illinois besides growers from the four sponsoring states of Pennsylvania, New Jersey, Maryland and Virginia. The program included speakers from many of the above states plus Florida, Minnesota, Kansas, Colorado, California and Washington as well as Ontario, Canada, and representatives of the Mexican Consulate.

This year's keynote speaker was Charlie Arnot, a recognized thought leader in food and agriculture and CEO of The Center for Food Integrity, who spoke on "Values, Trust and Science: Building Trust in Our Post-Truth Tribal World". He outlined the challenge the food industry has to gain the confidence of consumers in a world that puts as much, if not more, weight on what people on social media say about the safety of something than in science-based studies. Growers wanting to market to these consumers must recognize the consumer's perception of their product and empathize with them in order to gain their trust before they can present the facts about their products.

This year's Convention was 41st year that fruit and vegetable growers from Pennsylvania, Maryland and New Jersey met together at Hershey. They have been joined by the Virginia fruit growers for the last five years.

The three-day Convention featured six to nine concurrent educational sessions on all three days including, for the ninth year, two sessions in Spanish. In addition, the Convention included seven pre-convention workshops on January 29 plus a farm market bus tour that just over 400 participants. The workshops covered vegetable biocontrols, FSMA farm food safety training, farm business management, computer recordkeeping, UK cider production, orchard trellis construction, and pesticide applicator license training. The farm market bus tour included visits to the Milton Hershey School horticulture facilities, Harvest Lane Farm Market, Hess Brothers Fruit Company and Four Seasons Produce. Exhibits from 169 companies and organizations displayed their products and services in the exhibit halls all three days.

Jonathan Strite from PVGA was the Convention Joint Committee chairman for 2018 as well chairman of the PVGA Convention Planning Task Force. The educational sessions were organized by the following individuals:

- Pumpkins/Vine Crops: Thomas Butzler and Dr. Timothy Elkner – Penn State Extension
- Organic Vegetable Production: Dr. Elsa Sanchez – Penn State Univ.
- General Vegetables: Dr. Michael Orzolek – Penn State Univ. (retired) and David King – Harvest Valley Farm
- Potatoes: Dr. William Lamont – Penn State Univ. (retired)

- Ethnic/Specialty Vegetables: John Esslinger – Penn State Extension
- Root Vegetables: Dr. Beth Gugino – Penn State Univ., Lee Stivers – Penn State Extension, and David King – Harvest Valley Farm
- Tomatoes and Application of Drones: Kenneth Martin – Furmano Foods
- Kale/Brussels Sprouts, Asparagus: Steven Bogash – Marrone Bio Innovations
- High Tunnels: Steven Bogash – Marrone Bio Innovations and Arthur King – Harvest Valley Farm
- Sweet Corn: Dr. Shelby Fleischer - Penn State Univ.
- Rhubarb: Thomas Butzler – Penn State Extension

*(continued on page 10)*

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## NEWS

**2018 Convention...** (*continued from page 9*)

- Greenhouse Ornamentals: Sinclair Adam – Penn State Extension and Steven Bogash – Marrone Bio Innovations
- Cover Crops and Soil Health/Reduced Tillage: Dr. Beth Gugino – Penn State Univ. and Megan Chawner – Penn State Extension
- Small Fruit: Kathleen Demchak – Penn State Univ.
- Food Trends: Heather Manzo – Penn State Extension
- Cut Flowers and Micro Greens: Thomas Ford – Penn State Extension
- Farm Management: John Berry – Penn State Extension
- Farm Market Development: Brian Moyer – Penn State Extension
- Third Party GAP Audits: Jeffrey Stoltzfus – Penn State Extension
- Wholesale Marketing: Lela Reichart – Sterman Masser Inc. and Laura England – PA Department of Agriculture
- Agritainment: Thomas Butzler – Penn State Extension and William Reynolds – Reynolds Pumpkin Farm
- Marketing on Social Media: Shannon Dill – Univ. of Maryland Extension
- Educating Consumers and Media to Your Advantage: William Hlubik – Rutgers Cooperative Extension
- Alternative Activities for On-Farm Marketing: Michelle Casella – Rutgers Cooperative Extension

Other members of the Convention Planning Task Force were: Tanner Delvalle, Diane Erb, Gary Faulkner, Peter Ferretti, Jennifer Glenister, Kaitlin Horst, Lois Klinger, Nolan Masser, Benjamin Moyer, David Miller, Eric Oesterling, Robert Pollock, Steve Sample, Thomas Strzelecki, Randy Treichler, Grant Troup, Adam Voll

Ag Choice Farm Credit and MidAtlantic Farm Credit sponsored a grower reception prior to the annual Fruit and Vegetable Growers Dinner on January 30. PVGA presented its Annual Award to Kenneth Martin (see article page 3). The State Horticultural Association presented their annual award to ?????? and a distinguished service award to Dr. Tara Baugher with Penn State Extension in Adams County along with Farm Show awards to Peters Orchards and Hollabaugh Bros. Orchards.

Sponsors for the banquet included Kirby Agri, Inc., Knouse Foods Cooperative, Rice Fruit Company, the State Horticultural Association of Pennsylvania and the Pennsylvania Apple Program (Platinum Level \$1,000 or more); Adams County Nursery, Bernard C. Morrissey Insurance, Inc., Hess Brothers Fruit Co., and Pabody Insurance and Financial Services (Gold Level \$500 to \$999); Frey Group LLC, Maryland State Horticultural Society, New Jersey State Horticultural Society, Nourse Farms, Inc., Pennsylvania Farm Bureau, Pennsylvania Vegetable Growers Association, The Core Group (Bear Mountain Orchards, Bream Orchards and El Vista Orchards), the Virginia State Horticultural Society and Weller and Associates, Inc. (Silver Level \$250 to \$499); and C&O Nursery, and Wafler Nursery (Bronze Level \$100 to \$249). The following seed companies generously sponsored coffee during the trade show: Ball Seed Co., Harris Seeds, Johnny's Selected Seeds, Rupp Seeds Inc., Sakata Seed America Inc., and Syngenta.

The American Fruit Grower magazine sponsored three of the tree fruit sessions and the American Vegetable Grower magazine sponsored three of the vegetable sessions. International Paper sponsored the lanyards for attendees while



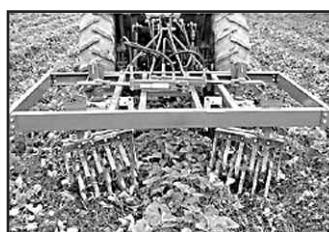
*Keynote speaker Charlie Arnot, center, speaks with interested growers after his presentation. (photo courtesy of Sean Clougherty, American Farm Publications)*

Organix Solutions provided tote bags.

On the second night of the Convention, PVGA hosted the nineteenth annual Ice Cream Social. Generous portions of ice cream and a choice of toppings (including Hershey's chocolate syrup, of course) were accompanied by potato chips. Utz Potato Chips and Herr Foods donated potato chips for the event.

The planning committees will meet in March and April to begin planning for next year's edition of the Mid-Atlantic Fruit and Vegetable Convention which will be held January 29 to 31, 2019.

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## NEWS

## PVGA Funds More Vegetable and Small Fruit Research

The Pennsylvania Vegetable Growers Association Board of Directors budgeted \$74,000 for vegetable and small fruit research in 2018 although to date only \$46,500 has been allocated towards specific projects. The Association may be receiving an additional small fruit proposal and another vegetable proposal is pending. In addition, the Association and Vegetable Marketing and Research Program have extended an invitation to Dr. Francesco Di Gioia, the vegetable researcher who is expected to arrive at Penn State in May, to submit a proposal for funding later this year as well. This year's contributions put PVGA's funding for research over the past 30 years at \$1,104,000.

The research funding has been made possible through the profits earned at the Association's food booth at the Farm Show and profits from the Mid-Atlantic Fruit and Vegetable Convention. This year, PVGA will contribute at least \$38,500 towards vegetable research and \$8,000 for small fruit research – more if the additional vegetable and small fruit proposals are received and approved.

The following ten vegetable projects are being funded for \$61,250 in conjunction with the Vegetable Marketing and Research Program and the Simply Sweet Onion Committee. The Vegetable Program which will contribute \$20,000 towards the projects while the Simply Sweet Onion Committee will give \$2,750 for the onion variety trial. The projects approved for funding with their objectives are listed below.

### Testing High Residue Cultivation (HRC) for No-Till Snap Bean and Squash Production

*Dr. Andrew Smith, Rodale Institute*

**\$5,000**

- Evaluate and provide vegetable growers with valuable information on the success of using the HRC in managing weeds mechanically for no-till and organic vegetable crop production.
- Compare cover crops + HRC to herbicide treatments in no-till snap bean production.
- Compare cover crops + HRC to herbicides and black plastic mulch in butternut squash production.

### Viable Options for Managing Allium Leafminer (ALM) in Organic Onion Production

*Dr. Gladis Zinati, Rodale Institute*

**\$5,000**

- Evaluate the potential for different plastic mulches and two cover crops to reduce ALM populations and damage.
- Empower allium growers with knowledge and scientifically-based viable cultural and biological tools to improve allium leaf miner early detection and management, and onion yield and quality.

### Allium Leaf Miner Monitoring and Management

*Timothy Elkner, Penn State Extension and Shelby Fleischer, Penn State Univ.* **\$4,500**

- Investigate the emergence period of allium leafminer in the spring and fall in order to alert growers of the need for control measures.
- Refine an alert system for growers regarding the emergence of allium leafminer.
- Investigate the impact of plant age on attractiveness to leafminer adults.
- Evaluate the efficacy of insecticides on both a spring onion and a fall leek crop.

### Onion Variety Evaluation Trial

*Thomas Butzler, Penn State Extension* **\$3,750**

- Evaluate the marketable yield and quality (sugar and pyruvic acid level) of onion varieties that have the potential to become part of the Simply Sweet Onion Program.

### Breeding Tomatoes for Disease Resistance and Other Desirable Characteristics for Production in PA

*Majid R. Foolad, Penn State University* **\$12,000**

- Develop and do field evaluations of fresh market experimental F<sub>1</sub> hybrids with high yield, EB resistance, and other desirable characteristics including fruit quality.
- Produce large numbers of seeds of 17 Penn State elite fresh market F<sub>1</sub> hybrids and do field trials by numerous researchers/extension agents/growers.
- Develop and do field evaluations of processing experimental F<sub>1</sub> hybrids with high yield, EB resistance, and other desirable characteristics including fruit quality.
- Develop fresh market and processing tomato breeding lines with LB resistance, conferred by *Ph-3* and/or *Ph-5* resistance genes.

(continued on page 12)



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## NEWS

**PVGA Funds More... (continued from page 11)**

- Develop and evaluate of fresh market and processing experimental F<sub>1</sub> hybrids with LB resistance.
- Conduct genetic analysis of a recombinant inbred line population of tomato segregating for LB resistance.
- Evaluate in the field Penn State advanced fresh market and processing tomato breeding lines.

**Enhancing Authority MTZ Safety for Processing Tomatoes**

*Mark VanGessel, University of Delaware and Dwight Lingenfelter,  
Penn State University* **\$5,000**

- Evaluate metribuzin and sulfentrazone for safety with processing tomatoes under different application strategies.
- Determine level of early-season weed control from metribuzin and sulfentrazone.

**Keeping PA Vegetable Growers Profitable: Statewide Muskmelon Cultivar Trials**

*Elsa Sánchez, Penn State Univ. and Tim Elkner, Tom Butzler, Bob Pollock, and Carla Burkle, Penn State Extension* **\$12,000**

- Evaluate twenty cultivars and selections of muskmelons in conventional plasticulture system.

**Managing Early Season Cucumber Beetle Populations in Pumpkin Using Exirel**

*Timothy Elkner, Penn State Extension and Shelby Fleischer, Penn State Univ.* **\$4,000**

- Evaluate the effectiveness of Exirel in managing cucumber beetles and reducing the incidence of bacterial wilt in pumpkins during the early season.

**Colored Bell Pepper High Tunnel Variety Trial**

*Timothy Elkner, Penn State Extension* **\$4,000**

- Repeat the trial conducted in 2017 to confirm the results.

**Coupling Host Resistance with the Evaluation of Biofungicides for the Management of Common Foliar Vegetable Diseases in Pennsylvania.**

*Beth K. Gugino, Penn State Univ.* **\$6,000**

- Evaluate the coupling of host resistance with the evaluation of biofungicides and biofungicide augmented conventional programs for the management of the most common economically important foliar diseases on tomato and cucurbit in Pennsylvania.

In addition the Association is helping to fund a high tunnel berry production project primarily funded by a Specialty Crop Research Initiative grant from USDA. The project includes researchers at Penn State University (Kathy Demchak), Michigan State University, Cornell University and others. PVGA's \$8,000 contribution is part of the required industry matching funds required by the grant program. This is the fourth year of a five-year commitment to the project.

**Vote "Yes" for Vegetables**

During the first two weeks of March, Pennsylvania vegetable growers will have the opportunity to vote "Yes" or "No" as to whether the Pennsylvania Vegetable Marketing and Research Program will be continued. The Program was established thirty years ago to enable all the vegetable growers in the state to collectively fund both vegetable research and vegetable promotion. Since that time over \$620,000 in grower assessment funds have been made available to help fund over 350 practical vegetable research projects. Those monies have been used to conduct numerous variety, herbicide, and fungicide trials so Penn State Extension educators have up-to-date data to base their recommendations on. They have been used to develop and maintain monitoring systems for sweet corn and tomato IPM programs as well as study no-till production systems. The funds have also supported Penn State's tomato breeding program that is developing tomato varieties resistance to early and late blight – with the first variety – the "Valentine" grape tomato variety being released this year.

On the promotion side, the Program used \$550,000 in assessment funding to help growers profitably market their crops. In addition the Program has received an additional \$400,000 in state and federal grants. These monies have been used to provide retail growers with professionally printed point-of-purchase materials each year. The Program's press relations efforts have resulted in hundreds of news articles in newspapers across the state reaching millions of readers – reminding them of the availability of fresh, local vegetables and giving them delicious recipes. Billboards and radio advertising have

(continued on page 13)

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## NEWS

## PVGA Has Another Successful Farm Show

Sales at this year's PVGA Farm Show Food Booth were just slightly higher than last year's sales due to the introduction of the corn nuggets to the menu and the addition of a satellite booth in the Main Hall of the Farm Show Complex. Total sales were just under \$209,000 and profits are expected to be about \$57,000 – thanks to the efforts of over 230 volunteers.

Sales were down about \$4,500 from the record sales in 2016 although profits should be similar. Thanks to the help of over 40 volunteers each day who filled 350 shifts during the eight and half days of the Farm Show, PVGA earned a profit of about \$165 for each volunteer shift.

The only new menu item this year was the corn nuggets which had good sales. The menu also included batter-dipped vegetables, blooming onions, berry and pumpkin funnel cakes, fried pickles, strawberry slush drink, raspberry lemonade, vegetable soup, chicken corn soup, broccoli-cheese soup, chili, broccoli-cauliflower and bean salads, garden salads, carrot/celery sticks, dill pickles, mixed berry and pumpkin pies, and vegetable wraps. Sales included (some counts are estimated):

- 9,300 servings of batter-dipped vegetables
- 6,000 blooming onions;
- 5,550 Strawberry Surprise drinks;
- 5,500 bowls of vegetable, chicken corn, broccoli/cheese and chili soups;
- 3,400 funnel cakes
- 2,650 raspberry lemonades
- 1,700 servings of fried pickles
- 1,500 bowls of broccoli/cauliflower and bean salads;
- 650 pieces of Very Berry and pumpkin pie
- 576 vegetable wraps and
- 269 garden salads

Bill Reynolds, PVGA Secretary-Treasurer and past presidents Brian Campbell and Rob Shenot each managed the booth for two days this year. Jack Grace and his daughters Jackie and Nancy of Grove City graciously volunteered for the eighteenth year to oversee the soup-making operations and assist in overall management for the entire week while Boots Hetherington oversaw the drink portion of the booth for the week.

This year's booth again featured a large flat screen television where pictures from PVGA members' farms were shown. Nancy Grace put together the slide show from pictures submitted by members.

### **Vote "Yes" ... (continued on page 12)**

been used in past years while in recent years the Program has focused on promoting PA Vegetables on its website PAVeggies.org and on social media at #PAVegetables. For the past 12 years, the Program has celebrated August as PA Produce Month to highlight to consumers the peak of the local vegetable season.

PVGA urges growers to vote "Yes" to continue the Vegetable Marketing and Research Program that provides the platform for all the growers in the state to cooperatively fund these efforts that strengthen the state's vegetable industry and thus benefit growers across the state. Remember, ballots must be postmarked by March 20, 2018.

Michael's Concessions of Northampton, a family business that operates concessions at fairs and carnivals throughout the year did the actual preparation and frying of the batter-dipped vegetables, blooming onions, fried pickles, corn nuggets and funnel cakes while PVGA volunteers served and sold them. PVGA volunteers also helped prepare the vegetables. The produce for the batter-dipped vegetables and blooming onions was supplied by Kegel's Produce.

The satellite booth in the Main Hall (other original Farm Show Building) was joint effort between PVGA, the mushroom growers, dairymen, Penn Ag Industries and FFA. PVGA offered a limited menu of funnel cakes, onion rings, chicken corn soup and Strawberry Surprises. PVGA sales at the satellite booth were only modest.

The Honor Roll of this year's volunteers is listed on pages 14 and 15 to recognize those who made the effort to come to Harrisburg to help out. If you didn't help this year, please volunteer to help next year. The more new volunteers we have, the less time we need to ask of our veteran volunteers. The Farm Show Food Booth make it possible for the Association to support research and promotion activities.

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## NEWS

**Farm Show Volunteer Honor Roll**

Following is the list of farms and individuals who volunteered time to staff the Farm Show Food Booth this year. We apologize for any names that might be omitted. Asterisks (\*) indicate the number of days persons helped (if more than one).



Art King



Becky Frey



Bill Rankin



Cindy Yingling and Kim Lockwood

Eric Oesterling, Steve Lutz  
and Boots Hetherington

Greg Forry

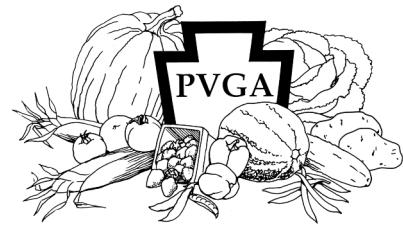


Don Geise



Bob Barronner

- Ag Choice Farm Credit  
 Tim Eshelman  
 Bill Frailey  
 Wendi Gearhart  
 Danny Jordan  
 Meghan Ritchey  
 Allyson Rudy  
 Brad Wentzel  
 Rebecca Warriner  
 Rob Amsterdam\*\* & Susan Richards  
 Alan Ard  
 Craig Austin  
 B&R Farms  
 Robin & Boots\*\*\*\*\* Hetherington  
 Blair Hetherington  
 Morgan & Kevin Bond  
 Barefoot Farm  
 David and Lora Hartzell  
 Elijah Hartzell  
 Sadie Glafelter  
 Baronner's Farm  
 Robert Baronner  
 Gordon Perry  
 Baseshore Farms  
 Thomas Baseshore\*\*\*  
 Max Baseshore\*\*\*  
 Brenda & Mark Baumgardner  
 Bender's Potatoes  
 Brook Bender  
 Amanda Tarman  
 John Berry  
 Bitler Farms  
 Michael Richard  
 Logan Strouse  
 Steven Bogash\*  
 Brian Campbell Farms  
 Brian & Erica Campbell\*\*\*  
 Elisa Bello  
 Tracy Starr  
 Lynn Brown  
 Francis & Jennifer Broyan  
 Burger Farms  
 Leonard Burger Jr.  
 Lenny Burger III  
 Aaron Burkholder  
 Carl & Ruth Cantaluppi  
 Duane & Judith Charles  
 Charles Farm Produce  
 Sharon Charles  
 Conrad Charles  
 Earl Charles  
 Terrell Charles  
 Matt Christner\*\*  
 Chris Colitas  
 Copenhagen Farms  
 Ron & Brenda Copenhagen  
 Jessie & Martha Copenhagen  
 Clyde & Peggy Dearolf  
 Kenneth Dearolf\*\*  
 Don & Marion Deckman  
 Ted Dymond\*\*  
 Tim Elkner  
 Jim Erb  
 D&E Farms  
 Rob Erlemeier\*\*  
 Abby Erlemeier\*\*  
 Ephrata Mennonite School  
 Eileen Heller  
 Lamar Alwine  
 Dallas Good  
 Sabrina Heller  
 John Kauffman  
 Durrell Martin  
 Garrett Martin  
 Kara Martin  
 Tyler Miller  
 Morgan Newswagner  
 Rachel Rivera  
 Tonya Rutt  
 Ashley Shirk  
 John Esslinger  
 Jay Eury  
 FDR Produce  
 Fred Ranck  
 Ashley Ranck  
 Austin Ranck  
 Earl Ferry  
 Forry's Roadside Market  
 Greg\*\*\*\*  
 Derek Forry  
 Dustin Forry  
 Mary Foster\*\*\*\*  
 Foxleigh Farm  
 Carville Mace  
 Carville Mace, Jr.  
 Dennis & Becky Frey  
 Breanne Funk  
 Furmano Foods  
 Don Bergey  
 Jim Clemens  
 Don\*\* & Sue Geise  
 Terry Greaser  
 Jim & Phyllis Kohl  
 Scott Hoffman\*\*  
 Ken & Dawn Martin\*\*  
 Brian Nace  
 Steve & Andrea Reinard  
 Mike Stroup  
 Stephen & Gayle Ganser  
 Garden Meadow Farm  
 Brent & Julie Kaylor  
 Haley Diener  
 Jacob Zuklic  
 Charles & Andrea Gimbar\*\*  
 Graceland Farm Market  
 Jack Grace\*\*\*\*\*  
 Nancy Grace\*\*\*\*\*  
 Jackie Grace\*\*\*\*\*  
 Gray's Apple Ridge Orchard  
 David & Pam Gray  
 Jeff Waltermyer  
 Greater Johnstown Career & Technology Center  
 Lisha Knapp  
 Isaiah Johnson  
 Maddy Knopp  
 Brianna Shortt  
 Hannah Solomon  
 Kaci Williams  
 Groff's Vegetable Farm  
 Earl & Edith Groff  
 Mary Ann Leaman  
 Harner Farm  
 Dan Harner  
 Chris Harner  
 Harnish Farms  
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 Baulton Leed  
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# Pennsylvania Vegetable Growers Association

An association of commercial vegetable, potato and berry growers.

815 Middle Road, Richfield, Pennsylvania 17086-9205

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## State Legislative Priorities for 2018

The Pennsylvania Vegetable Growers Association is an association of commercial vegetable, potato and berry growers with 1,050 plus members representing an industry that annually produces crops valued at over \$147 million on 3,950 farms with 50,000 acres of farmland across the Commonwealth.

### **Penn State Agricultural Extension and Research Appropriations -**

Funding for Penn State Extension and Research is critical to maintain agriculture's cutting edge and should be continued at least at current levels. The vegetable and berry industries have given over \$1.7 million to research in the past 30 years, but we need the extension and research infrastructure that is supported by state appropriations.

### **High Tunnel Storm Water Management Requirements -** Some

municipalities are requiring engineered storm water management plans for high tunnel structures which can greatly increase the cost of erecting these structures. We feel these structures should be exempted from these requirements.

### **Farmers' Market Nutrition Program -** Both the Women, Infant and Children (WIC) and low-income senior citizens coupons have greatly increased farm market sales while providing nutrition to needy Pennsylvanians.

### **Pennsylvania Agricultural Surplus Program (PASS) –** This Program has been very successful in sourcing over 4 million pounds of food from Pennsylvania agricultural producers – providing them some compensation to help cover harvesting and packing costs of products that they might otherwise found more economically feasible to leave unharvested. PASS has enabled producers to donate these products to the food bank system across the state. Currently funded at \$1 million, we would encourage funding of \$3 million annually.

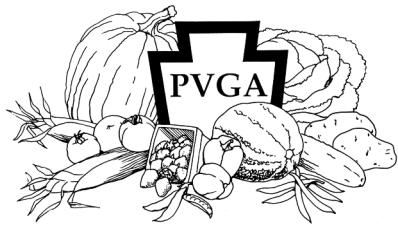
### **Driftwatch –** The impending introduction of dicamba and 2,4,D tolerant crops will result in the wider use of dicamba and 2,4,D in the state. Drift and/or volatilization of both of these herbicides can cause extensive damage to certain vegetable crops. Driftwatch is a voluntary registration program that allows growers of sensitive crops to register their field locations so applicators using dicamba and 2,4,D can locate potentially sensitive crops. However, funding is needed to establish the registry system.

## **2018 Policy Resolutions**

*The Members of the Association recently adopted these additions to our Policy Resolutions putting the Association on record as:*

### **State Issues**

1. Supporting requirements that companies that receive state grants for the purpose of building, expanding or updating an agricultural processing plant use a minimum of 25% Pennsylvania agricultural products when available.
2. Supporting amendments to the Retail Food Facility Safety Act to require proprietors to obtain only one food market stand license, rather than multiple licenses for each farmers' market attended.
3. Supporting the expansion of the Red Tag permit program to allow two permits per-parcel per-hunter statewide.
4. Supporting antler restrictions for senior and lifetime license holders that require two or more points on one antler or a spike three or more inches in length.
5. Supporting the elimination of white-tailed deer antler restrictions in CWD Disease Management Areas.
6. Supporting amendments to the vehicle code to authorize issuance of annual permits to a Commercial Motor Vehicle and a non-Commercial Motor Vehicle authorizing the movement on highways for all agricultural commodities and agricultural related equipment, which exceeds the maximum vehicle gross weight specified in Title 75, Chapter 49, Subchapter C (relating to maximum weights of vehicles). The weight of any vehicle permitted may not exceed 95,000 pounds overall gross weight and the weight on any non-steering axle may not exceed 21,000 pounds.
7. Supporting an exemption for any farm licensed or farm stickered vehicle from the road weight restriction within the 50-mile farm radius.
8. Supporting the reduction of the maximum period for review and approval for nutrient management plans and the Department of Environmental Protection agricultural permits from 180 days to 90 days.
9. Supporting a farm survey, similar to that conducted by Penn State University for the Chesapeake Bay watershed, for other watersheds in the state to capture Best Management Practices that have not been cost shared to be credited to water quality improvement.
10. Supporting a restriction on township riparian buffer ordinances that would prohibit them from requiring streambank buffers greater than 35 feet or requiring that buffers be completely forested.
11. Supporting the exemption of structures used for growing crops in the field, such as low tunnels, high tunnels and greenhouses where crops are grown in the soil and no permanent changes have been made to soil or topography of site, from state storm water regulations.
12. Supporting the development of Best Management Guidelines by the Department of Environmental Protection and agricultural organizations that would allow farmers to maintain and improve drainage lines to protect the use of farmland without requiring costly permits, delays and engineering costs.
13. Opposing the required metering of private wells and gravity-flow systems by government and all other agencies or organizations."
14. Supporting the establishment by the Department of Transportation of an online and paper no-spray registry for roadside state spraying.
15. Supporting a requirement that persons bringing emotional support and/or service animals into facilities where pets are not otherwise allowed have the need for the emotional support and/or service animal certified by a medical professional.



# Pennsylvania Vegetable Growers Association

An association of commercial vegetable, potato and berry growers.

815 Middle Road, Richfield, Pennsylvania 17086-9205

717-694-3596

[pvga@pvga.org](mailto:pvga@pvga.org)

[www.pvga.org](http://www.pvga.org)

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## Federal Legislative Priorities for 2018

The Pennsylvania Vegetable Growers Association is an association of commercial vegetable, potato and berry growers with 1,050 plus members representing an industry that annually produces crops valued at over \$147 million on 3,950 farms with 50,000 acres of farmland across the Commonwealth.

### Labor Issues

**Immigration and Farm Labor Reform** – Our members regularly list immigration reform and labor availability as one of their main legislative concerns. Our growers need an affordable and dependable labor supply to stay in business. We need immigration reform that creates a legal labor force with reasonable verification requirements. A mandatory E-verify bill without a workable agricultural labor program would be disastrous for American agriculture.

**Card Check** – We are opposed to the elimination of the secret ballot for employees in deciding on union representation and to mandatory arbitration to resolve failed union and employer contract negotiations.

### Environmental

**Waters of the United States** – We are concerned that the recent changes in regulations adopted by the Environmental Protection Agency and the Army Corps of Engineers will require federal permits and approval for many ordinary farm practices that are currently adequately regulated at the state and local level. We support the repeal of these regulations.

### Food Safety

**Good Agricultural Practices, Produce Traceability** – We support safe food production systems, but these mandates should not be so burdensome so as to prevent our small growers from competing in the marketplace for negligible improvement in food safety.

### Appropriations

**Specialty Crop Funding** – The Specialty Crop Block Grants have been a major source of funding for our industry's promotion and research activities. These funds need to be maintained.

**Land Grant Agricultural Research and Extension Funding** – Federal funding of these key agricultural support programs has continued to dwindle. Farmers depend on the research and extension activities of their land grant institutions.

**Nutrition Funding - The Farmers' Market Nutrition Program for Women, Infant, Children clients and senior citizens** is of great benefit to both of these groups and our growers.

## ***2018 Policy Resolutions***

*The Members of the Association recently adopted these additions to our Policy Resolutions putting the Association on record as:*

### ***Federal Issues***

1. Supporting changes in the regulations for Commercial Drivers Licenses (CDL) that would make CDL Medical Card anniversary dates coincide with the card holder's birthdate.
2. Supporting the exemption from registration for farmers using drones in their own farm business.
3. Supporting the ability of farmers to update and maintain on-farm management plans utilizing current soil and manure samples that would eliminate the need to rewrite NRCS 590 Nutrient Management Plans every three years.

## NEWS

Harvest Valley Farms  
 Arthur King\*\*  
 David King\*\*  
 Caleb Costanzo\*\*  
 Nash Lawrence\*\*  
 Harvest View Farm and Market  
 Ken and Cathy Metrick  
 Amy Metrick  
 Diane Heimbach  
 Glenn Hetherington  
 Aidin Hoover  
 Melissa Jacoby\*\*  
 Richard Johnson  
 Kegel's Produce  
 Ben Burchfield  
 Kemmerer Farms  
 Alan Kemmerer  
 Adam Kemmerer  
 Nathan Kemmerer  
 Ben King  
 Klinger Farms  
 Lois Klinger  
 Rick Klinger  
 Kristen Joyce  
 David Kreider\*\*  
 Lloyd & Mary Lois Kreider  
 Roger Lauver  
 Robert & Rachel Lunge  
 Steve & Carol Lutz\*\*  
 McPherson Greenhouses  
 Michael McPherson  
 Robert McPherson  
 Eugene Strouse  
 Mast Farms  
 Ernest Mast  
 Dawson Mast  
 Neil & Audrey Merkel  
 Miller Plant Farm  
 Dave Miller\*\*  
 Haylee Anders  
 Lyndee Anders\*\*  
 Brent Clever  
 Karin Ellinger\*\*  
 Courtney Fauth  
 Bruce Manns\*\*  
 Sue Myers  
 Steve Slyder  
 Lynne Shive  
 Greg Watson  
 Nicole Wisner  
 Jeffrey\*\*\* Mizer  
 Barrie Moser\*\*  
 New Morning Farm  
 Jared Bailey  
 Seth Queen  
 Ken Nolt  
 John O'Barr  
 Mark Oakley  
 Eric Oesterling\*\*  
 Fran Olliver\*\*  
 Pallman Farms  
 Brian Pallman  
 Bruce Pallman  
 Craig Pallman  
 Doug Pallman  
 Todd Davis  
 Paulus Farm Market  
 James Paulus  
 Peter Conners  
 Dan Crouse  
 Penn Valley Farms  
 Stephanie Keller  
 Joel Kauffman  
 Ruth Kauffman  
 Jennelle Peters

Pete's Produce Farms  
 Peter Flynn  
 Kim Cozier  
 Danni Pinzone  
 Jo Williams  
 Pine Valley Farm  
 Dustin Leid  
 Jordan Leid  
 John A. Martin  
 Wesley Nolt  
 Robert Pollock\*\*  
 Ernest Pyle\*\*  
 William Rankin\*\*\*\*\*  
 Reiff's Farm Market  
 Ed Reiff  
 Nathan Reiff  
 Chyanne Reiff\*\*  
 Lisa Reiff  
 Sally Reiff  
 Teresa Reiff  
 Kimberly Sensenig  
 Leon Ressler  
 William & Lois Reynolds\*\*\*  
 Richfield Life Ministries Church  
 Dave Esterline\*\*  
 Jeff Maneval  
 Nathaniel Leitzel  
 Tammy Leitzel  
 Michael Yakamook  
 Richmond Produce  
 Harold & Joanna Burkholder  
 Caleb & Laura Hoover  
 Thomas Ricker  
 Jay & Marion Rutt  
 Steve Sample\*\*\*\*  
 Leann Sensenig  
 Mark Sensenig  
 Marlin Sensenig  
 Regina Sensenig  
 Sernak Farms  
 Jeff Sernak  
 Hilary & Martha Schramm  
 John Shenk  
 Rob Shenot\*\*\*  
 Tim Shultz  
 Scott & Jan Simmons\*\*  
 Heather Skorinko  
 Allen Sollenberger  
 Elmer Stoltzfus  
 Heidi Stoltzfus  
 Jeff Stoltzfus  
 Strawberry Lane  
 Keith Kaucher\*\*  
 Noah Kaucher  
 Jon Strite\*\*\*  
 Styer Farm & Market  
 Tom & Daisy Styer  
 Anna Styer  
 Sara Styer  
 Larry & Chris Swartz  
 Tomato Barn  
 Tyler Rohrer  
 James Barkley  
 Randy Treichler  
 John & Bonnie Troxell\*  
 Cheryl Troxell\*\*\*  
 Tina Weyant  
 Tim & Karen Wilson  
 Yellow Hill Farm  
 Natalie Bishop\*  
 Hannah Abel\*\*  
 Kim Hamilton\*\*  
 Kim Lockwood  
 Arthur & Janice Yingling  
 Cindy Yingling

*Dave King,  
 Dave Esterline,  
 Caleb Costanzo  
 and  
 Nash Lawrence*



*Randy Treichler and  
 Matt Christner*



*Fran Olliver*



*Steve Bogash*



*Hil Schramm, Dave Kreider  
 and Lloyd Kreider*



*Steve Sample*



*Martha Schramm*



*Stephanie Keller*

## NEWS

### National News Briefs

#### USDA Secretary Talks Farm Bill in Pennsylvania

Pennsylvania Farm Bureau members were first to learn the U.S. Department of Agriculture's recently announced priorities for the 2018 Farm Bill. That's because USDA Secretary Sonny Perdue unveiled the agency's goals for the legislation during an event organized by PFB at Reinford Farms in Juniata County.

Perdue toured the dairy farm—owned and operated by the Reinford family, who are Farm Bureau members—and then spoke to a group of more than 80 Farm Bureau members. He outlined the agency's Farm Bill goals and gave attendees a chance to ask questions and offer their input.

"These principles will be used as a road map," Perdue said. "They are our way of letting Congress know what we've heard from the hard-working men and women of American agriculture."

Perdue said that improving the safety net for dairy producers will be a major focus of the legislation. He said he expects the next farm bill will be "evolutionary, rather than revolutionary," by continuing the shift to crop insurance rather than direct payments. He also said USDA would like to see a farm bill that gives farmers flexibility to make decisions based on markets, instead of having to tailor their production to fit farm bill programs. For a full list of USDA's farm bill priorities, visit <http://bit.ly/2DINn8F>.

PFB President Rick Ebert said it was an honor to have Perdue visit the Keystone State for the announcement. He added that the meeting gave farmers a chance to help shape federal agriculture policy.

"It was great to have the secretary come out to Pennsylvania to see the lay of the land and hear about our concerns and challenges," Ebert said. "Hopefully, he'll take our input back to Washington and incorporate it into USDA's policies. It's important that USDA, as a service organization, is responsive to farmers and their needs."

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

#### New Requirements for Applying Dicamba Herbicide in 2018

The herbicides Engenia, Xtendimax and FeXapan, when applied over the top of Roundup Ready 2 Extend (dicamba tolerant) soybeans, are now classified as "Restricted Use Pesticides" and will require dicamba-specific training by a certified applicator to purchase and apply. A list of where and when the training sessions will be held will be available from pesticide dealers, Pennsylvania Department of Agriculture and Penn State Extension.

Producers will be required to maintain records that the herbicide was applied according to label restrictions. Other requirements include applying the new dicamba herbicides when wind speeds are below 10 mph, narrowing the window of time during the day these products may be applied, thoroughly cleaning spray tanks to prevent cross contamination and keeping records of sensitive crops planted nearby.

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

#### Water Quality Continues to Show Improvement in the Chesapeake Bay

The water quality of the Chesapeake Bay continues to show improvement as nutrients and sediment decline in local

waterways. Underwater grasses are expanding in acreage and blue crabs are increasing by substantial numbers. Between 2014 and 2016, 40 percent of the Chesapeake Bay and its tributaries have attained water quality standards showing the highest level of improvement since data was first collected in 1985.

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

#### EPA Delays WOTUS Rule

The U.S. Environmental Protection Agency is officially putting the brakes on implementing its Waters of the U.S. (WOTUS) rule while the controversial regulation is rewritten. The 2015 rule, which Farm Bureau opposes, never went into effect because of injunctions issued by federal courts. However, a recent U.S. Supreme Court ruling on a technical issue related to the case against WOTUS could negate one of those injunctions and cause the rule to go into effect. EPA's proposal seeks to avoid that scenario by delaying the applicability date of the regulation for two years. EPA has proposed rescinding WOTUS and recently accepted public comments on that plan. The agency is now holding listening sessions to gather input on what a revised clean water rule should look like. The current version of WOTUS would subject an estimated 98 percent of Pennsylvania land to federal water regulations. Farm Bureau believes the 2015 rule attempts to regulate land areas well beyond what is allowed by federal law and has advocated for replacing it with one that protects water quality without trampling on landowners' rights.

*From Farm Bureau Express, Penna. Farm Bureau, February 9, 2018.*

#### Farm Bureau, Farmers Union Launch National Effort to Combat Opioid Crisis

Farm Bureau is teaming up with the National Farmers Union on a nationwide initiative aimed at helping farm families and rural communities as they grapple with the challenge of opioid addiction.

The groups have launched a website to help families access treatment and prevention resources and are planning a series of events and a social media campaign aimed at raising awareness and sharing resources.

The Farm Town Strong initiative comes after a study commissioned by the organizations found that the farming community has been among the hardest hit by the opioid epidemic. About 74 percent of farmers and farm workers surveyed reported that either they, someone they knew or a family member had struggled with opioid addiction, compared with 45 percent of rural adults in general. The study also found that while opioids are easily available in rural communities, treatment and prevention resources are lacking.

"Farm country has been hit hard by the opioid epidemic – even harder than rural America as a whole, or big cities," said AFBF President Zippy Duvall. "It's going to take everyone working together to combat this crisis to make a difference."

For more information, visit [www.farmtownstrong.org](http://www.farmtownstrong.org).

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

#### Help Rebuild Puerto Rican Agriculture

Puerto Rico's farmers will need lots more help going forward as try to restore their lives and farms following the devas-

*(continued on page 18)*

## YARNICK/KIMMEL FARM EQUIPMENT REDUCTION AUCTION!!

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Date of Auction: Saturday March 31st 2018 at 9:30 am.

John Deere, 5525 High Crop 1150 Hrs.  
 John Deere, 5085 Open Station Flat Deck w/ Creeper 1180 Hrs  
 John Deere 6420 Cad 4WD 3042 Hrs  
 John Deere, Gator TS 2WD  
 (2) John Deere Gators 825i 4x4 Brush Guards and Roof , Both with Approx 1200 Hrs.  
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     Aluminum Irrigation Pipe, Hook & Latch w/ Sprinklers & Sprinkler Guns W/ Pipe Wagons  
 International Golf Cart  
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 New Idea One Row Corn Picker Model 323  
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 Bei Cummins 4" Water pump Low Hrs  
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 Enviro- Mist Bubco Shielded Sprayer  
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 Troybilt Walk Behind Mower  
 3 Pt Hitch - 4 Ft Back Blade  
 400 Gallon Water Tank  
 New Tractor Tires- American Farmer 13.6-38  
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## NEWS

## State News Briefs

### Governor Presents Budget Proposal

On February 6, Governor Tom Wolf presented his proposed State Budget for the Fiscal Year 2018-19 to the General Assembly. He projects spending to be \$32.9 billion, an increase of \$989.8 million (a 3.1% increase) over the current fiscal year. Following are several of the changes the Governor is seeking (bold means specific rural impact):

- There would be a new tax, the Marcellus Severance Tax: (\$248.7 million)
- No increase in rate of Sales Tax or Personal Income Tax (PIT) is envisioned.
- Increasing the minimum wage to \$12 per hour has a target of reducing entitlement costs (Medicaid, etc.) by \$101 million per year.
- Merging the Department of Health into the Dept. of Human Services.
- Impacting 67% of all PA municipalities would be a \$25 per person levy to fund State Police for those communities with no local law enforcement.
- Additional \$225 million for education with \$100 million increase for basic education and \$15 million increase for State System of Higher Education, \$25 million increase in STEM (Science, Technology, Engineering, Mathematics) and computer science education
- \$25 million more in child care.
- More spending (\$33 million) on various programs directed at combating the opioid crisis.
- \$74 million more for services for individuals with autism or intellectual disabilities.
- \$2.5 million to combat Lyme Disease.
- Roads and bridges infrastructure includes \$50 additional mil-

### National News Briefs (continued from page 16)

tation of Hurricane Maria. Puerto Rico Farm Bureau has established a fund to assist farmers in rebuilding the island's agriculture.

The hurricane hit the island head on in September, destroying as much as 80 percent of agricultural production. Due to the extensive damage, rebuilding Puerto Rico's agricultural sector is going to be a long-term process.

"Maria was a devastating storm and many farmers and ranchers in Puerto Rico face an unprecedented challenge to return their land to production and rebuild infrastructure," said Puerto Rico Farm Bureau President Hector Ivan Cordero. "The disaster will affect our farm and ranch families for many years, but our will to overcome the damage is strong."

Tax-deductible donations can be made to the Puerto Rico Agricultural Relief Fund, established through Texas Farm Bureau's Agriculture Research and Education Foundation. All donations will go directly to farmers recovering from the hurricane.

To donate, visit [www.fb.org/prag-fund](http://www.fb.org/prag-fund) or mail a check to: Texas Farm Bureau Agriculture Research and

lion for maintenance of low traffic roads and \$40 million in new money for Rural Commercial Routes.

- Department of Environmental Protection (DEP) gets \$2.5 million additional to fund inspections of natural gas wells.

**Agriculture** - PA Department of Agriculture budget shows a \$2 million decrease in General Fund monies from the current \$177.034 million to \$174.988 million for Fiscal Year 2018-19.

However, the good news was that the General Government Operations line item was increased \$2.6 million from \$30.784 million in the current fiscal year to a proposed \$33.407 million. This increase includes \$1.597 million to combat the Spotted Lantern Fly, a pest particularly threatening PA's wine and fruit industry.

#### Increases

- Transfer from Environmental Stewardship Fund from current \$9.893 million to \$11.037 million (Agriculture Conservation Easement Program)
- Farm Products Show Fund from \$12.798 million to \$13.438 million
- Fruit & Vegetable Inspection and Grading from \$389,000 to \$460,000
- Conservation District Grants from \$2.851 million to \$2.877 million

**Zeroed Out** - Centers for Agricultural Excellence \$1.331 million; Ag Research (not to be confused with Penn State Ag Research) \$1.687 million; Ag Promotion, Education & Exports \$303,000; Hardwoods Research & Promotion \$424,000; Livestock Show \$215,000; Open Dairy Show \$215,000; Food Marketing & Research \$494,000.

**Safe** (for now): Penn State Extension and Ag Research

(continued on page 19)

Education Foundation; Puerto Rico Agricultural Relief Fund; PO Box 2689; Waco, TX 76702-2689; Attn: Cyndi Gerik. Checks should be made out to the "Texas Farm Bureau Agriculture Research and Education Foundation"

For more questions, contact Janice Neckar at [jneckar@txfb.org](mailto:jneckar@txfb.org) or 254-751-2494.

**From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.**

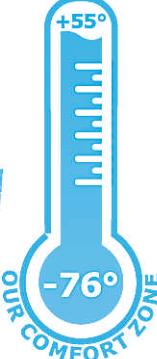


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## NEWS

### **State News Briefs** (continued from page 18)

\$52.313 million; UPenn Vet School \$30.135; PA Preferred \$605,000; Youth Shows \$169,000; Nutrient Management \$2.714 million; Dirt, Gravel Roads \$28.0 million; State Food Purchases \$19.188 million; PASS (Food Banks) \$1.0 million; Farmers Market Food Coupons \$2.079 million (state share)

*From the AG ONE Newsletter, Penna. State Council of Farm Organizations, Issue 2018.2, February 13, 2018.*

#### **High Tunnel Bill Passes Senate Committee**

House Bill 1486, sponsored by Rep. David Zimmerman of Lancaster County, would prevent municipalities from requiring that farmers submit stormwater management plans on high tunnel structures that meet common sense guidelines. PFB believes farmers applying this technology on their farms to meet increasing demand for fresh, local produce should be free of the burdensome paperwork, delay and cost often imposed by local regulation. The bill cleared the Senate Environmental Resources and Energy Committee and can now be considered by the full Senate. The bill has already passed the House.

*From Farm Bureau Express, Penna. Farm Bureau, February 9, 2018.*

#### **PFB Opposes Bill to Cut State Legislative Seats, Reduce Rural Influence**

Pennsylvania Farm Bureau is pushing against a plan that would dilute the voice of rural families in state government by reducing the number of seats in the General Assembly. This week, the state House passed House Bill 253, which calls for cutting the number of House districts to 151 from 203 and

reducing the number of Senate districts to 37 from 50. The legislation now heads to the Senate for consideration. PFB believes that cutting legislative seats would result in more districts being concentrated in urban and suburban areas, reducing the influence of rural Pennsylvanians. That would weaken the ability of farmers and rural families to have their concerns and needs addressed in Harrisburg. If the bill were to clear the General Assembly this year, it would be only the first step in a lengthy process. Changing the size of the General Assembly would require an amendment to the state Constitution. For that to happen, the House and Senate must each pass identical resolutions in back-to-back legislative sessions. Then, the proposed amendment would be put to a public vote in the form of a ballot question. The General Assembly passed a resolution last session calling for the reduction in the House but not one calling for reducing the Senate or both chambers.

*From Farm Bureau Express, Penna. Farm Bureau, February 9, 2018.*

#### **Free Money for Farmers Developing Agricultural Plans in Chesapeake Bay Watershed**

There's still plenty of state grant money available for farmers in the Chesapeake Bay Watershed to recoup the cost of developing environmental plans.

The state Department of Environmental Protection announced in October it would make \$1.5 million available to reimburse farmers in the watershed who hired professional consultants to aid in the development of their nutrient management, manure management or agriculture erosion and sediment control plans.

*(continued on page 20)*

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## NEWS

### **State News Briefs** (*continued from page 19*)

Through January, the department had only committed a little more than \$257,000, leaving more than \$900,000 still available. That means farmers who apply for the funding would be very likely to be approved.

Reimbursements are available for plans developed after Jan. 1, 2017. There is only a short time left for farmers to take advantage of this program. Grant applications must be submitted on or before April 1.

For more information about eligibility and grants available, farmers in Bradford, Cameron, Carbon, Centre, Clearfield, Clinton, Columbia, Elk, Jefferson, Lackawanna, Luzerne, Lycoming, McKean, Montour, Northumberland, Potter, Schuylkill, Snyder, Sullivan, Susquehanna, Union, Tioga, Wayne, and Wyoming counties should contact Sara Bolton of Larson Design Group at 570.374.5700 or [sbolton@larsondesigngroup.com](mailto:sbolton@larsondesigngroup.com).

Farmers in Adams, Bedford, Berks, Blair, Cambria, Chester, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Indiana, Juniata, Lancaster, Lebanon, Mifflin, Perry, Somerset, and York counties should contact Jedd Moncavage of TeamAg at 717.721.6795 or [jeddm@teamaginc.com](mailto:jeddm@teamaginc.com).

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

### **Pennsylvania CWD Cases on the Rise**

Early testing of deer harvested during the 2017-2018 hunting seasons has already revealed 51 positive results for chronic wasting disease, more than double the number of positive tests found during 2016. And according to the Pennsylvania Game Commission, the majority of samples collected during the season have yet to be tested, which means even more CWD-positive tests are likely to come.

All but three of the deer that have tested positive for CWD so far this season were from Disease Management Area 2 in the south-central part of the state. The others were from Disease Management Area 3 in the north-central part of the state. The Game Commission offered free testing for hunters who harvested deer within disease management areas and commission staff also collected samples. In total, nearly 8,000 samples were collected statewide.

CWD affects all cervids, including deer and elk, and is spread by deer-to-deer contact. It is always fatal and there is no known cure for the disease.

To date, 98 free-ranging deer have tested positive for CWD in Pennsylvania. The Game Commission has sought to control the disease's spread by limiting the transportation of deer harvested within disease management areas, targeting hunter pressure on problem areas and removing some deer populations using sharpshooters.

"By developing a control program where we go into these hotspots and remove the animals with a greater likelihood of carrying the disease, we might stand our best chance of controlling CWD on a larger scale, while minimizing the impact on the larger deer population or diminishing deer hunting opportunities," said Wayne Laroche, the Game Commission's special assistant for CWD response.

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

### **Delaware River Commission Accepting Comments on Proposed Fracking Ban**

The Delaware River Basin Commission, a multi-state agency that regulates the Delaware River and water that flows into it, has proposed a ban on extracting natural gas from rock formations in the basin through high volume hydraulic fracturing, also known as fracking.

If enacted, the ban would affect drilling activity in the basin area that benefits farmers and other landowners who hold natural gas leases. It would also effectively stop farmers and landowners in the region from being able to enter into new leases with gas companies if natural gas deposits are discovered on their land.

In Pennsylvania, the affected areas would include parts of Carbon, Lackawanna, Luzerne, Schuylkill, Wayne and Pike counties.

The commission has extended a public comment period on the proposal, giving the public until March 30 to comment on the plan. This is a chance for farmers and rural landowners to tell the commission directly how the proposed regulation would affect them.

Several public hearings to solicit comments have already occurred and another is scheduled for Feb. 22 from 3 p.m. to 7 p.m. at Lehigh Carbon Community College. There will also be a telephone public hearing March 6 from 1:30 p.m. to 3:30 p.m. You must register to speak at the hearings. Visit <http://bit.ly/2zEaB9C> for more information or to register for the hearings. Written comments can also be submitted online at <http://dockets.drbc.commentinput.com>.

Requests to be exempted from using the online registration and written comment collection systems may be addressed to: Commission Secretary, DRBC, PO Box 7360, West Trenton, NJ 08628.

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

### **USDA Releases Emergency Funding to Stop Spotted Lanternfly Spread**

The U.S. Department of Agriculture is releasing \$17.5 million in emergency funding for programs to halt the spread of the invasive Spotted Lanternfly. The pest—which was first identified in Berks County in 2014 and has spread throughout southeastern Pennsylvania—is a major threat to agricultural crops, particularly fruit trees and hardwoods. The emergency funding will be used for a two-pronged approach to containing the Spotted Lanternfly threat. USDA's Animal and Plant Health Inspection Service will monitor and control the outside of the infestation area to stop the insect from spreading while the Pennsylvania Department of Agriculture will work within the core infestation area to reduce Spotted Lanternfly populations. "We've seen a dramatic expansion in the range of this pest over the last year and we need to take decisive action to prevent the spotted lanternfly from spreading throughout Pennsylvania and into neighboring states," USDA Secretary Sonny Perdue said. "We have the tools to fight this invasive insect and—together with the Pennsylvania Department of Agriculture—we have developed an area-wide approach that will begin before the pest starts to re-emerge in the spring."

*From Farm Bureau Express, Penna. Farm Bureau, February 9, 2018.*

(continued on page 21)



## NEWS

### **State News Briefs** (continued from page 20)

#### **Pa. Congressmen Want for Support for Spotted Lanternfly Efforts**

Pennsylvania's delegation to the U.S. House of Representatives are calling for the 2018 Farm Bill to include additional funding for efforts to stop the spread of the invasive spotted lanternfly.

The request came in a letter signed by all 17 Pennsylvania congressmen and sent to leaders of the House Committee on Agriculture. The Pennsylvania congressmen asked for the 2018 Farm Bill to ramp up funding for the Plant Pest and Disease Management and Disaster Prevention Program, which Pennsylvania has tapped in its effort to fight the pest.

"This increase would ensure Pennsylvania has the tools and resources it needs to defend from pests such as the Spotted Lanternfly," the delegation wrote. "If swift action is not taken to combat this invasive pest, we risk jeopardizing our nation's food and economic security, which is why we strongly support this necessary investment."

The spotted lanternfly was first discovered in the U.S. in Berks County in 2014 and has since spread to other southeastern counties. The pest can cause widespread plant damage and is a major threat to fruit and hardwood crops.

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

#### **Learn About Agricultural Planning Tool at Upcoming Workshops**

Farmers can learn about how to use PAOneStop—an online tool that can be used to develop agricultural plans to

meet regulatory requirements—during a series of upcoming workshops.

PAOneStop is a free computer mapping tool that helps users create high-quality maps required for completion of Nutrient Balance Sheets and Nutrient Management, Erosion and Sedimentation and Manure Management plans. The program can also walk users through the steps of completing an Erosion and Sedimentation Plan.

Each training consists of two separate sessions over two days. The following training events have been scheduled or are in the process of being planned:

Tioga County: March 27 and April 3, 9 a.m. to 1 p.m., Tokish Training Center in Wellsboro

Blair County: March 28 and April 11, 6 p.m. to 9 p.m., Morrisons Cove Memorial Park Banquet Hall in Martinsburg

Berks County: April 5 and 19, Berks County Ag Center in Leesport

Lycoming County: April 7 and 14, 9 a.m. to 12:30 p.m., Lycoming Ag Center in Montoursville

Leigh County: April 5 and May 2, Lehigh Valley Conservation District in Allentown.

For more information about PAOneStop or questions about the upcoming trainings, visit [www.paonestop.org](http://www.paonestop.org) or contact Bob Neiderer at 877.722.4724.

*From the Pennsylvania Agricultural Alliance Issues Update, Penna. Farm Bureau, February 2018.*

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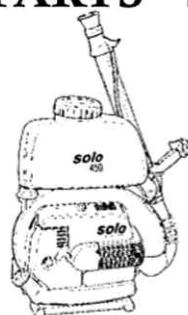
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## VEGETABLE PRODUCTION

# High Tunnel Study: Growers Unaware of Water Quality Issues

An ongoing project funded by the Pennsylvania Vegetable Growers' Association looks at cropping and nutrient management issues in high tunnels.



*High tunnel tomatoes. Photo: Tom Ford, Penn State*

At this juncture in the study, Dr. Elsa Sanchez, Professor of Horticultural Systems Management at The Pennsylvania State University, and Thomas Ford, Penn State Extension Horticulture Educator, have reviewed surveys, soil test results, and water test results for over 30 growers statewide. While the analysis and work are far from over, a variety of recurring themes appear to be the predominant reasons for the observed cropping issues in high tunnels.

When first reviewing the surveys, subsequent conversations with the study participants found that only a small minority of the growers had their irrigation water tested. If they had undertaken any water testing, they were focusing on generic *E. coli* and food safety but had not specifically looked at their water chemistry. Water chemistry and specifically the overall quality of the water can impact plant nutrition, soil permeability, soil chemistry, and crop yield. While many growers noted cropping and yield issues, few took the time or resources to evaluate their farm water supply to see if it could be a source of, or a contributing factor in, their high tunnel troubles.



*Early stages of potassium deficiency in cucumbers. Photo: Tom Ford, Penn State*

The most common observed water quality issue in this study was high alkalinity. The typical grower applies 1-2 inches of water per week in their high tunnel during the growing season. Growers utilizing very alkaline irrigation water are essentially administering a dose of CaCO<sub>3</sub> or lime to their soil in every irrigation cycle. If the grower is not injecting acid into their irrigation water to reduce their water alkalinity and pH, the pH of the soils in the high tunnel will increase over time. As the soil pH moves beyond 6.8 - 7.0 the grower may begin to observe the

earliest stages of micronutrient deficiency (specifically Zinc, Iron, and Manganese). Growers who have tested their water and have determined that they have a water alkalinity issue can input their data in the University of New Hampshire website ALKCALC to determine the appropriate amount of acid to inject in their irrigation water to reach their target alkalinity level (usually 50-80 ppm).

*Iron deficiency in watercress.*

*Photo:  
Tom Ford,  
Penn State*



Additional water quality issues observed on some participants' farms were elevated sodium and chloride levels. Many water testing laboratories do not routinely test for sodium or chloride unless specifically requested by the grower. While accumulated sodium and chloride in the soil can be toxic to some crops, increased soil sodium accumulation in high tunnel tomatoes can result in a scenario where sodium cations compete with potassium cations for uptake sites on roots, resulting in potassium deficiency and low fruit numbers. Typically, chloride is associated with elevated sodium levels and competes with the uptake of nitrate-nitrogen, resulting in lower yields.



*Iron deficiency in tomatoes. Photo: Tom Ford, Penn State*

Elevated levels of sodium and chloride in irrigation water cannot be removed efficiently or economically. Reverse osmosis is frequently employed if the grower has a minimal operation that uses a limited amount of water. On sizeable multi-acre vegetable operations, it is often more cost effective to either dilute the irrigation water with rainwater that has been caught in a cistern or to locate another water source. In some cases in Pennsylvania growers have had no other recourse, but to connect to a public water supply to preserve their livelihood. For additional information on water quality issues and high tunnel production, please contact your local commercial horticulture educator.

*Dr. Sanchez is with the Department of Plant Science at Penn State Univ. and Mr. Ford is with Penn State Extension in Cambria County. From Penn State Extension at [extension.psu.edu/high-tunnel-study-growers-unaware-of-water-quality-issues](http://extension.psu.edu/high-tunnel-study-growers-unaware-of-water-quality-issues).*



## VEGETABLE PRODUCTION

# High Tunnel Soil Management Update

Bruce Hoskins and Katie Campbell-Nelson

Many growers are preparing high tunnel soils now for main season crops such as tomato, pepper, or cucumber. In a high tunnel, these summer season crops can produce a lot more plant biomass, hopefully more yield, and they grow for longer periods than in the field, so they require more nutrients to reach their yield potential. High tunnels often receive up to 3 times the recommended field application rates of fertilizers. Nutrient runoff from high tunnel soils is not a concern but leaching could still be a source of environmental contamination if crops are unhealthy and do not produce that extra biomass. Furthermore, overfertilization of greens can lead to levels of nitrate in harvested leaves that are above those recommended for human consumption. This accumulation of nitrate may be occurring in high tunnels where high levels of fertility remain in the soil at the end of the summer when additional fertilizers might be added for the winter crop, and nutrient uptake over the winter is slow due to low light and temperature conditions. Over time, other issues such as accumulation of salts may occur, causing yield reductions. High tunnel soil management is currently not well understood, but luckily, a dedicated team is working on the issue.

Since 2016, a team of Extension Educators and scientists in New England, led by Becky Sideman at the University of New Hampshire, has been working on a SARE Research and



*Test soil compaction with a penetrometer. (photo: G. Higgins)*

Education grant partially addressing nutrient management in high tunnel tomato production. At the New England Vegetable and Fruit Conference this year, Bruce Hoskins from the University of Maine soil lab presented an update on this project with management tips summarized below. This season, the University of Massachusetts Vegetable Program and Soil Lab are working with the University of Maine, and 3 other New England states to track soil

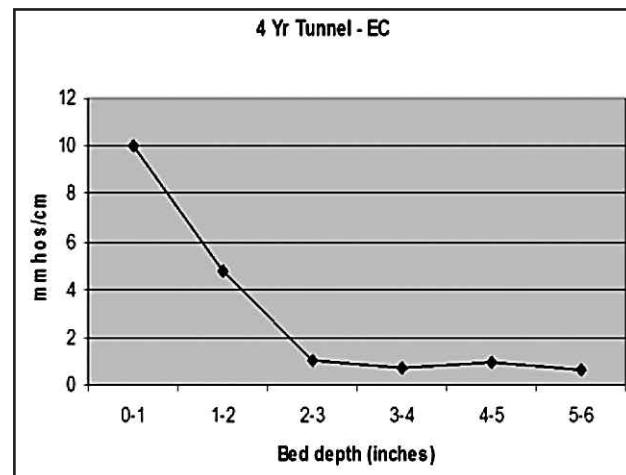
and tissue tests in 5 high tunnel tomato crops per state to come up with uniform high tunnel soil testing protocols and interpretations.

For a general article on high tunnel soil testing procedures and interpretation, see the May 5th, 2016 issue of Vegetable Notes link in the resources section below. If soil test results come back with optimum nutrient levels and you make fertilizer applications according to your crop needs, but you still notice abiotic disorders or plant stress symptoms, which can't be attributed to disease or insect pressure, you may want to check for compaction, which is indicated by a penetrometer reading of 300 psi or greater. If compaction is within the root zone, especially within the top 15 cm, your plants may suffer from stunted roots; compaction below the root zone can lead to saturated soils and poor root growth. Soil compaction can be remediated with subsoiling, broadfork, or deep rooted cover crops. See instructions for using a penetrometer to test soil compaction here: <https://extension.psu.edu/diagnosing-soil-compaction-using-a-penetrometer-soil-compaction-tester>

Following are updates in high tunnel soil management directly from Bruce Hoskins based on research conducted over the last two years:

"We have encountered a number of challenges within these projects that are both specific to high tunnel production and the byproduct of using natural and non-chemical nutrient sources. Many of these problems were unanticipated but also informative. Each of us has also worked with many high tunnel growers on specific problems in their operations. This talk is to share some of the insights gained in this process.

Salt buildup in high tunnel production is a well-known problem. Water is typically applied through drip irrigation only to satisfy immediate needs of the crop being grown. Transpiration of the crop plants plus surface evaporation cause a net upward wicking movement of soil water. Nutrient salts build up over time and eventually have to be flushed by uncovering to natural rainfall or by heavy irrigation. To document this salt buildup, several beds were excavated in one-inch increments and measured for total salt content. We found that, regardless of the nutrient source (chemical fertilizers, natural fertilizers, or compost), all beds showed the same pattern of salt accumulation in the top 2 inches (figure 1). The top inch typically has 10 times the salt level and the second inch has 5 times the salt level of the remainder of the bed. This huge stratification of nutrients is best addressed by remixing the beds before each planting cycle.



*Figure 1. Salt accumulation in high tunnel soil over time.*

High alkalinity (hard) irrigation water is a common problem in greenhouse bench crop production. When all water is supplied by irrigation, high alkalinity water can cause soil or media pH to rise over time, causing deficiencies of iron, manganese, or zinc in some crops. This pH "creep" has become an occasional problem for some high tunnel growers as well. Surface water from ponds or streams is the preferred source for irrigation, where available, since these sources typically have very low alkalinity. High pH soil can be (slowly) acidified organically by mixing in elemental sulfur at 15 lb/1000 sq ft of bed area for each 0.5 pH unit drop.

In our preliminary research project potassium (K) was applied the first year as natural potassium sulfate, with 2 successive crops grown with no further K application. Initial application rates ranged from 100 to over 900 lb/A of K. At all locations, soil K levels were "cropped down" by plant uptake to low

(continued on page 24)

## VEGETABLE PRODUCTION

### **High Tunnel Soil... (continued from page 23)**

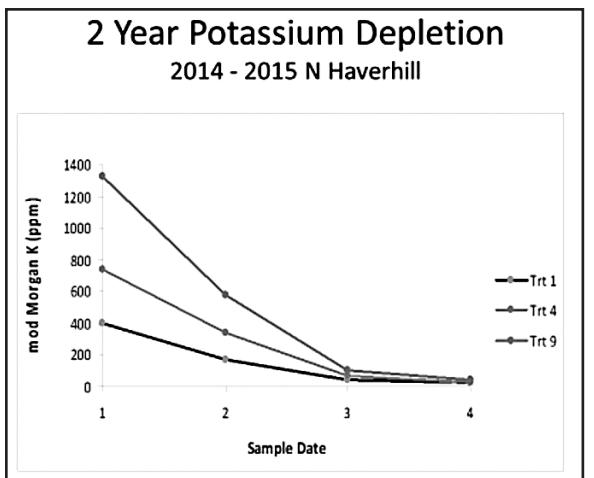


Figure 2.  
Potassium depletion over two years at one location.

test levels regardless of initial treatment level. In some cases, this was an astounding amount of soil depletion in just 2 years (figure 2). Tomatoes and other solanaceous crops have a strong tendency to "luxury consume" K, whether or not it is needed for normal growth and yield. The high incidence of very low soil test K levels in tomato production high tunnels can be explained by this tendency. One of the goals of current research is to determine the minimum soil level of available K that will maintain maximum yield and quality of tomatoes.

We are attempting to find critical K test levels corresponding to maximum yield and quality, using 2 common types of soil testing methods: a field soil test (modified Morgan) and a soil water test (saturated media extract or SME). The field soil test measures the total quantity of available K in the soil. The soil water test measures the short-term availability of K in soil water (often called "intensity"). The proportion of the total quantity available in the soil water at any given time (the "buffering capacity") is determined by clay and organic matter content of the soil. The 3 locations in the initial study had a range of soil textures: silt loam (higher clay), sandy loam (moderate clay), and loamy sand (low clay). On average, the 2 tests documented relative K intensities of 10 % in the silt loam, 20 % in the sandy loam, and 33 % in the loamy sand. The higher proportion of immediately available K in coarse textured sandy soils leads to faster plant uptake and depletion of the total available K reserves, compared to lower short-term availability in the heavier textured soil. Faster K depletion in sandier soils can be compensated for by applying one or two K applications through the drip later in the season, rather than front-loading all K before planting.

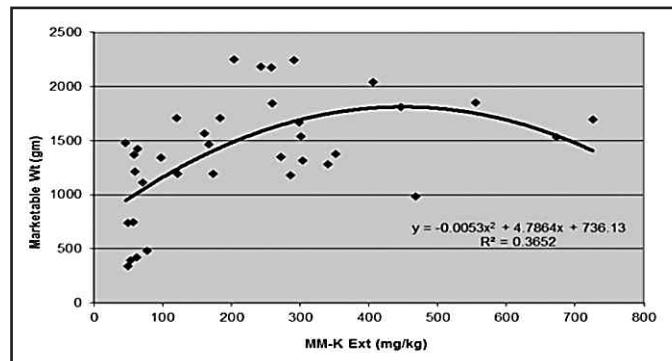


Figure 3. Marketable weight vs. soil K in a tomato high tunnel at one location.

In both preliminary and ongoing research, total and marketable yield as well as incidence and severity of yellow shoulder (YS) were measured as a response to applied K. To document plant uptake, either leaf sap K or full leaf K content were also measured. These samples were used to establish relationships between soil test K (STK) and foliar K, STK and Yield, STK and YS, foliar K and Yield, foliar K and YS. These relationships were investigated for each of 3 locations using both first and last harvest soil and foliar data each year. Significant relationships were found at some locations at some sampling dates (figure 3), but not consistently. In fact, inconsistent relationships seem to be characteristic of all 3 locations for all years. One key observation was the wide range of STK at each treatment level, especially at high treatment levels. This indicated incomplete release of K from the potassium sulfate applications. The source used was a relatively coarse granulation (up to 1/4 inch). Unreacted granules of potassium sulfate were found in archived soil samples that were not apparent during initial drying, sieving, and homogenizing. This was observed even in end of season soil samples that were taken one or even two years after application. This is one explanation of the high degree of variability in STK levels and inconsistent relationships with Yield, YS, and foliar K. K fertilizer applications were not supplying intended/assumed amounts of K to the crop. In some cases, we were measuring K in the soil test that had not actually been released for plant uptake.

A fundamental problem with high tunnel production is the hot dry environment and incomplete wetting of beds. This slows or prevents the release of nutrients, as opposed to open field production where soil is thoroughly wet to field capacity several times during the season. Even though both common natural K sources (potassium sulfate and Sul-Po-Mag) dissolve in water quite readily, the presence of undissolved granules at the end of one or even two years points out the severity of the problem. This is also a potential problem with natural nitrogen sources, which require sufficient soil moisture for full mineralization and release of nitrogen in plant-available form. Our recommendation is to maintain 3 – 4 lines of drip in a typical 30-inch bed to minimize dry soil zones and incomplete nutrient release in soil between drip lines. This is especially important in sandy soils which do not readily conduct water laterally, due to rapid infiltration rates."

#### Resources:

Campbell-Nelson, K. and Grubinger, V. Vegetable Notes Vol 28:5 "Soil Testing in Tunnels": [https://ag.umass.edu/sites/ag.umass.edu/files/newsletters/may\\_5\\_2016\\_vegetable\\_notes.pdf](https://ag.umass.edu/sites/ag.umass.edu/files/newsletters/may_5_2016_vegetable_notes.pdf) University of Massachusetts: 5.5.2016

Hoskins, B. NEVFC, 2017 Conference Proceedings. "High Tunnel Soil Management Update." <https://unh.app.box.com/s/pxyj71rrt3862pggduvpak10ha09g606> and presentation by the same title: <https://unh.app.box.com/s/puvini2uv1sp6jn5hytnpmfvpzvs8pxv>

Sideman, B. SARE Research and Education Grant Project Report. 2016. "Improving nutrient and pest management in high tunnel tomato production." [https://projects.sare.org/sare\\_project/lne15-343/](https://projects.sare.org/sare_project/lne15-343/)

Mr. Hoskins is with the Univ. of Maine and Ms. Campbell-Nelson is with the Univ. of Massachusetts Extension. From the *Vegetable Notes for Vegetable Farmers in Massachusetts*, Univ. of Mass., Vol. 30, No. 2, February 15, 2018 with Mr. Hoskins part originally in the *Proceedings of the 2017 New England Vegetable and Fruit Conference*.

## VEGETABLE PRODUCTION

### 2017 Cauliflower Variety Trial

Michael Orzolek

Ten cauliflower varieties were trialed at the Russell Larson Agricultural Research Center in Rock Springs during the 2017 season. The varieties were transplanted May 24, 2017, into plastic-mulched raised beds equipped with drip irrigation. They were planted in randomized complete block experimental design with three replications with eight plants per replication. Mature heads were harvested four times between August 11 and September 21.

Varieties	Source	Days to Maturity	Head Color
Freedom	Seedway	67	White
Steady	Seedway	65	White
Cheddar	Seedway	63	Orange
Flamestar	Seedway	70	Orange
Flamenco	Seedway	72	White
Aquarius	Seedway	70	White
DePurple	Seedway	67	Violet purple
Graffiti	Johnny's	80	Purple
Sparrow	Hazera	73	White
Lake Placid	Hazera	85	White

### Controlling Weeds in Small-Seeded Crops Using Cultivation

Cultivation may be used to improve weed management in small-seeded crops. It is typically most effective on small weeds in dry, loose soil. Aggressive cultivators used between crop rows can be very effective. However, it remains a challenge to use cultivation to control weeds in the crop row without damaging the crop. In-row cultivation tools rely on a size difference between the weeds and the crop – meaning they are designed to cause just enough soil disturbance to kill small weeds while allowing the larger crop plants to survive. A new generation of cultivators allow for several different tools to target the in-row zone at once. Such “stacking” of tools has been used to greatly increase the percent weed control in corn (Gallandt et al. 2017), but few studies have been conducted in small-seeded crops. Therefore in 2017, in-row cultivation tools used singly and in stacked combinations were evaluated in carrot crops in Michigan. Carrots were managed with a pre-emergence flame weeding, a hand weeding at around 40 days after planting, and one or two between-row cultivations. An in-row cultivation was conducted on 1" tall weeds at around 25 days after planting using the tools listed in Table 1. Weeds and crop plants were counted before and after cultivation to determine effectiveness. Overall, the “stacked” tool combinations killed a greater percentage of the weeds, but also killed a greater percentage of the crop. While the finger weeders killed the lowest percentage of the crop, the disc hillers had the highest ratio of weeds killed to crop plants killed. Considering the crop loss, yield was somewhat minimally affected, possibly due to increased size of carrots in plots where density was reduced. The effectiveness of the in-row tools varied greatly with conditions, which suggests that further work is needed to determine the optimal adjustment for different soils, crops, and weeds. The torsion weeders appeared to be the most sensitive to variable conditions while the finger weeders seemed to be the least affected.

(continued on page 27)

#### Results:

Variety	No. of Heads	Wt. lbs.	Avg. Head Wt. - oz.	Head Diameter Range – inches
Freedom	7.7	18.5	38.4	5 to 7
Steady	8.0	19.2	38.4	4 to 6
Cheddar	7.0	12.5	28.6	5 to 7
Flamestar	7.3	13.2	29.0	4 to 6.5
Flamenco	6.7	16.6	39.7	6 to 8
Aquarius	7.0	10.1	23.0	4 to 7
DePurple	7.0	10.5	24.0	5.5 to 8.5
Graffiti	4.7	9.5	32.5	5 to 7
Sparrow	7.7	23.8	49.5	6 to 8
Lake Placid	5.0	9.4	30.1	5 to 7

#### Comments:

Steady was the only cauliflower variety that produced 100% of heads from the number of plants planted in the field. The variety that produced largest head by weight was Sparrow. The variety that produced the largest head by diameter was Flamenco. The earliest varieties were Freedom and Steady. Since Lake Placid was the latest variety, we only harvested only 62% of the plants in the field.



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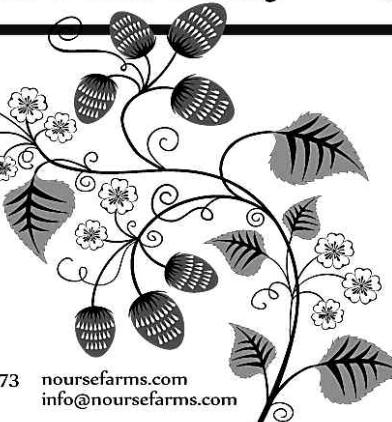
  

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## POTATO PRODUCTION

### Potato Blackleg Update

Angie Madeiras

Blackleg is a bacterial disease of potato caused by species in the genera *Dickeya* and *Pectobacterium*. It has been a growing cause for concern among potato growers in recent years, and also the subject of a great deal of research.



Potato Dickeya – seedlot on the right is infected. (photo Meg McGrath)

On November 9, 2017, The *Dickeya* and *Pectobacterium* Summit was hosted by the University of Maine Cooperative Extension in Bangor. More than 170 growers, scientists, extension personnel, and industry representatives gathered to hear researchers from the United States and Europe share current information on the bacteria that cause blackleg in potatoes. An interesting picture emerged as the speakers shared their findings. Blackleg epidemiology appears to differ significantly between Europe and North America. This is likely due to differences in climate, potato culture, and pathogen population structure. In North America, disease symptoms and epidemiology differ somewhat from east to west.

Speaker presentations are available online at <https://extension.umaine.edu/agriculture/programs-by-topic/dickeya-and-pectobacterium-summit/> Some salient points from the meeting are summarized below.

- The symptoms of *Dickeya* infection differ somewhat between northeastern and western North America. In the Northeast, non-emergence is a common issue, but this is seldom seen in the West. This may be due to differences in the environment and/or the prevalence of different *Dickeya* species in the two regions.
- With *Dickeya*, disease development is related to the amount of bacteria (inoculum level) in the seed. *Dickeya* causes damage at a lower inoculum level than *Pectobacterium* and therefore causes a more aggressive form of the disease.
- Tubers infected with *Dickeya* may appear healthy at harvest. The bacterium is inactive at low temperatures, so it is unlikely to cause storage rot. Infected tubers used for seed may still look healthy at planting, but the bacteria will become active again as soil temperature increases.
- *Dickeya* does not appear to be spread during seed cutting or during the planting process; however, it is still advisable to disinfect cutting and planting equipment, and ensure sufficient suberization of pieces before planting.

- Spread of *Dickeya* is more significant during harvest, especially if tubers are handled roughly. Management suggestions include handling tubers as gently as possible and avoiding bruising during harvest, postponing harvest until tuber skin has fully matured, and harvesting when soil is dry.
- Researchers have found that copper can induce *Dickeya* to enter a dormant state. This may account, at least in part, for some management failures seen in the field. The effect is dose dependent. Management suggestion: when applying copper, use the highest labeled rate.
- Overwintered tubers may harbor *Dickeya* and/or *Pectobacterium* and serve as a source of inoculum in the following year. This is a more significant problem in regions that do not experience hard frosts.
- Both *Dickeya* and *Pectobacterium* can survive in not degraded plant material in the soil, but neither survives for extended periods in soil outside of plant material. *Pectobacterium* survives up to three months, and *Dickeya* survives for about one month outside of plant tissue. Both bacteria can survive in perennial weed hosts, so crop rotation is still advisable.
- Both *Dickeya* and *Pectobacterium* can affect a number of other vegetable crops, including carrots, parsnips, broccoli, corn, and sunflowers. Neither bacterium appears to affect legumes or small grains; therefore, these crops are good choices for rotation.
- *Dickeya dianthicola* (currently the most common species in the eastern U.S.) remains latent in mother tubers early in the season. Disease expression begins when soil temperatures reach 86°F or greater. Corresponding air temperatures are generally ≥77°F. At lower temperatures, plants may not collapse but simply appear stunted and lacking in vigor.
- Optimum temperature for *Pectobacterium* is approximately 65-80°F.
- *Pectobacterium parmentieri* (formerly *P. wasabiae*) is the most common species of *Pectobacterium* in the United States at this time.
- Co-infections of *Dickeya* and *P. parmentieri* and/or *P. carotovora* are common in New England. Little is known about how the two species interact.
- Blackleg is associated with water. Both *Dickeya* and *Pectobacterium* are facultative anaerobes, which means that they thrive in the low oxygen environment of wet soils. Both bacteria may also be spread by water movement through the soil.
- *Dickeya* and *Pectobacterium* species can both be found in surface waters (rivers, ponds) but not in deep wells. Management suggestion: avoid the use of surface waters for irrigation.
- Both bacteria can live in tuber lenticels without causing disease. Bacteria become active when environmental conditions are right, and then disease occurs. Bacteria are released into the soil when infected tissues break down.

*The author thanks the USDA-NIFA, EIPM grant for sponsoring her attendance at this meeting. From the Vegetable Notes for Vegetable Farmers in Massachusetts, Univ. of Mass. Extension, Vol. 30, No. 1, January 11, 2018.*



## VEGETABLE PRODUCTION

### Controlling Weeds... (continued from page 25)

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#### Acknowledgements

This work was supported by the USDA National Institute of Food and Agriculture, Organic Agriculture Research and Extension Initiative Competitive Grant, "Farmer designed systems to reduce tillage in organic vegetables." Accession Number 1004267; A. Rangarajan, Project Director. —by Bryan Brown, NYS IPM Program, Cornell University; Daniel Brainard, Michigan State University; and Sam Hitchcock Tilton, Michigan State University

**Table 1.** Averaged results of the three in-row cultivation trials in carrots. Note that the in-row cultivation treatments were implemented in addition to pre-emergence flaming, between-row cultivation(s), and a late-season hand weeding.

In-row cultivation tool	Weeds killed (%)	Crop plants killed (%)	Yield (1,000 lb/ac)
harrow	20	17	26
finger	39	16	25
torsion	46	33	22
disc hillers	57	20	28
finger / disc hillers	79	38	22
finger / harrow	48	32	19
torsion / finger / harrow	55	31	23
none	-30*	0	26

\*When no tool was used, 30% more weeds had emerged in the time between counts.



Disc hillers demonstrated potential to bury 1" tall weeds in young carrots but further adjustments may be needed to reduce crop damage. (photo credit: Sam Hitchcock Tilton)

## CLASSIFIEDS

#### Equipment

**FOR SALE- USED RAIN-FLO RAISED BED MULCH LAYER** with Auto-Trak and center bed fillers. Model 2600. Asking \$3,200. Call 570-563-2258. 02

**FOR SALE – SPIDER SEEDER** sponge type with Planet Jr. seeders 3 row mounted on tool bar with gauge wheels dual purpose very fine seeds to large row crop and 1 extra Planet Junior Seeder \$2550.00; DIBBLE TOOL BAR mounted with gauge wheels 3-row. Similar to water wheel design. \$450.00; COMPOST TEA BREWER 250 gallon tank. \$950.00; IRRIGATION MOISTURE SENSORS 7-12" Irrometers (2 new), 2-18" Irrometers (1 new), Service Kit, several spare gauges. \$375.00; HAND BOX STAPLER \$50.00; CHEMICAL INJECTOR Dosmatic MiniDos 12 ratios 200 to 4000 PPM. \$275.00; MINI COMPOST TEA BREWER 5 gallon bucket type. \$95.00 Contact Chris @ 407-733-5444 or jubileeorganicfarm@gmail.com

**FOR SALE – MECHANICAL TRANSPLANTER** 1-row, 3-pt. hitch with water tank - \$950; **MULTIVATOR** 90" frame with two 24" rotary heads - \$3,200. Call 570-204-1215.

#### Publications

##### NEW ASPARAGUS PUBLICATION NOW AVAILABLE

Carl Cantaluppi, recently retired Area Horticulture Agent with the NC Cooperative Extension Service has written a new publication entitled, "Asparagus Production from A to Z", a 68-page regional bulletin that covers every aspect of asparagus production. It features 25 color photos of insects, diseases, and planting techniques to aid the grower. The author has over 30 years of applied research experience, working with asparagus throughout the northeast, southeast, and Midwest.

To order, send a check or money order in U.S. dollars for \$25.00, payable to Carl Cantaluppi and mail to:

Carl Cantaluppi,  
1222 Grangers Rd.,  
Selinsgrove, PA 17870

#### Business Opportunity

**A PRODUCE STAND** will be available at The Lancaster County Farmers Market in April, 2018. The market is located in the western suburb of Philadelphia in Wayne PA, approximately one hour drive from Lancaster City. The Mainline area is a very affluent community. Our customers expect the highest quality and freshness of products, and caring personal service. We are looking for a PA vegetable grower in the Lancaster County-Central PA area. In addition to locally- and regionally-grown seasonal produce, we are also looking for someone who would produce fresh fruit and vegetable juices, and "grab & go" fruit/vegetable snacks and salads. Other complementary product lines would be considered. The market is open year-round on Wednesday and Friday 8am-6pm, and Saturday 8am-4pm. Market doors are open at 6am each market day for our "early-bird" customers. Interested parties can email marketmaster@sclydeweaver.com or call 610-688-9856 on market days and ask for Mike Fisher."

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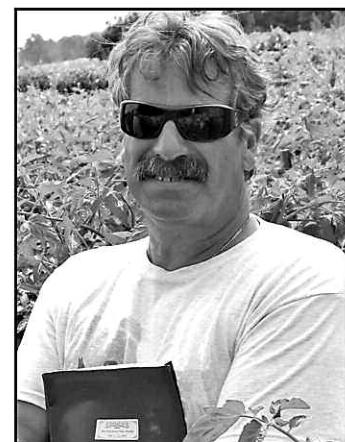
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