

PENNSYLVANIA
VEGETABLE GROWERS

NEWS

for the commercial vegetable, potato and berry grower

PVGA



Volume 47

Issue 5

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Art King of Harvest Valley Farms



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An association of commercial vegetable, potato and berry growers.

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President's Message

Dear PVGA Members.

When I started my own dairy farm, forty years ago, dairy farmers were plentiful, and we all helped each other out whenever a problem arose. It was a true community.

When I later transitioned into vegetable farming and decided to grow pumpkins, I sought advice from the best pumpkin grower in the area. To my surprise, he was evasive and unwilling to share his methods or advice. To him I was seen as a competitor, unlike in the dairy industry, where collaboration was the norm. This experience left a mark on me. I vowed never to be that way. I've always believed in helping neighboring farmers, sharing the varieties and practices that worked well for me.

Today, farmers are a dying breed. We need to stick together and support one another if we are to survive. The township where my farm is located is now down to its last production farm. Recently, the township purchased what was the second-to-last farm, a 300-acre tract, to save it from being turned into a housing development. Unfortunately, it will become a park, with no agriculture allowed.

I never had formal education in vegetable farming. Everything I learned about operating a successful farm market I learned from other farmers, the Mid-Atlantic Fruit and Vegetable Convention, and "on farm meetings." PVGA hosts several twilight meetings throughout the summer across the state. Last month, I attended one at Lakeland Orchard and Cidery, part of Roba Family Farms. It was one of the most impressive operations I've ever seen, a first-class farm in every respect. My only frustration was that it wasn't well attended—and that I'm now retired and can't use all the great ideas they had for my own business.

PVGA also co-sponsors a bus tour to various farms on the Monday of the Mid-Atlantic Fruit and Vegetable Convention. The tour includes visits to many farms that operate during the winter months, offering another excellent educational opportunity. Visiting farms where owners are proud to share their experiences is an opportunity not to be missed. If you're serious about your business, I strongly encourage you to attend as many of these events as possible.

A PVGA membership gives you access to these invaluable educational opportunities—a bargain, if ever there was one. If anyone is interested in hosting a twilight meeting next summer, please contact Tammy Linn at the office (717-973-5915 or pvga@pvga.org).

Let's continue to learn from one another, share our knowledge, and keep the spirit of cooperation alive. Our future depends on it.

Stay cool!

Pete Flynn

President PVGA

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908 N 2nd St., Harrisburg, PA 17102 | 717-973-5915 | pvga@pvga.org | www.pvga.org

Our Mission:

PVGA serves Pennsylvania's commercial vegetable, potato and berry growers through education, research, advocacy and promotion.

Our Vision:

PVGA is 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 PVGA at the above address.*

Neopestalotiopsis Update

Kathy Demchak, Penn State Extension



Fig. 1. *Botrytis* sporulation on dead strawberry leaf tissue originally suspected of having *Neopestalotiopsis* in 2024.

The dust is settling a bit concerning our new(ish) strawberry disease, *Neopestalotiopsis*, that was present in the 2024 strawberry plug plant supply. Unfortunately, we now have a few years of experience in dealing with this disease.

While there is a tendency to point fingers at whichever nursery is having a problem with this disease in a particular year, I'd like to point out that no one wanted it and from what I can tell, the nurseries were doing their best to avoid it. They've been doing the right thing by notifying customers and pulling plants from the supply chain once they knew NeoP was present in their plants, and took financial hits themselves by doing so.

Growers were understandably concerned. Thanks to most growers NOT receiving infected plants on their farms, in nearly all instances when folks sent in plug plants to be checked this year in PA, the problem was something less concerning. Though we found the aggressive strain of NeoP in a couple of samples (confirmed by the Univ. of Florida), *Botrytis* (gray mold), which was probably present because of the wet conditions that occur as runner tips are rooted under mist, was the most common disease present in plug plants showing leaf symptoms. In some cases, there were root rots, but usually the rots were starting at the root tips, which meant that the rooting media simply may have been holding too much moisture. There were a couple of instances of phytotoxicity from foliar fertilizers being mixed with fungicides, one instance of high salts in a high tunnel causing leaf burn, a leaf or two with anthracnose, powdery mildew on susceptible varieties, and a few spider mites and thrips.

This doesn't mean that we can let our guard down though. It is tempting to think that if we just avoid one nursery that is having disease problems (or two or four), we can avoid this disease. At this point in time, this may be true, but the reality is that close relatives of this fungus are causing headaches in strawberry fields worldwide. While this is hardly good news, that means that there are also many plant pathologists who are all trying to understand this fungus better and figure out faster methods of detection and control solutions. Breeders are trying to understand mechanisms of resistance in cultivars that are less affected so those can be incorporated into new

cultivars, and horticulturists are looking at improvements in production systems.

Fungicides and cultural methods to decrease disease pressure are what we have available right now. Keep in mind that cultural controls help with all diseases, not just this one, and help in reducing disease pressure overall so that fewer sprays are needed. So, if you have accepted plants from a nursery that may have had *Neopestalotiopsis*, monitor and watch for symptoms, which consist of dead or dying leaves, often starting out as V-shaped lesions along the leaf's edge. Black pycnidia form in these lesions within a few days in susceptible cultivars ('Chandler', 'Ruby June') if placed in a warm location in a plastic bag with a moist paper towel.

If you believe that your plants were free of *Neopestalotiopsis*, keep in mind that this fungus can be present without showing symptoms at low levels, so it's a good idea to watch no matter what. If you have the labor, remove dead and diseased leaves, as this will reduce the amount of fungus that is out there, but do be careful and work in healthier areas first to avoid moving spores from infected areas to healthy ones, and remove the dead leaves from the field entirely and destroy them. Don't let questionable plants "hang around" in flats. Clean off equipment between fields to avoid moving infested soil around.

Use Thiram as a protectant, which will help with both *Neopestalotiopsis* and *Botrytis*, with Switch or certain category 3 fungicides added if needed. These include propiconazole (e.g., Tilt), flutriafol (e.g., Rhyme), and difenoconazole (e.g., Inspire). Not all active ingredients in category 3 are similarly effective. Only multi-site fungicides (thiram and captan) have little likelihood of resistance development.

While it is tempting to keep fields for a second year (since who knows what next year's plant supply will look like), do not keep fields suspected of having NeoP. In the past, infected plants of susceptible varieties have "gone down" over the summer after harvest once warm wet conditions occurred even though they looked relatively good at harvest. When discontinuing smaller plantings, pull the plants out, and otherwise do what you can to chop the crowns so they decompose more rapidly, as they are where the fungus persists the longest.



Fig. 2. V-shaped lesions with black pycnidia caused by *Neopestalotiopsis*.

Photos by K. Demchak, Penn State.

Reflections Column

Using Plasticulture for Vegetable Production

Dr. Bill Lamont



Having worked in the field of plasticulture for my entire career I thought a brief review of the plasticulture system would be relevant for my first "Reflections Column". The statement that "plastics revolutionized the field of horticultural crop production and in particular vegetable crops is certainly true". Just think of the changes in the way we grow crops and how plastics are involved in everything from production to packaging. For crops such as muskmelon, watermelon, squash and cucumber, tomato, peppers, eggplant and early sweet corn have shown excellent response to the use of plasticulture. Other crops such as the Cole crops, potatoes, sweet potatoes, herbs, cut flowers, and small fruits have also shown excellent response to the use of plasticulture. The primary crop responses are earlier maturity, increased yields and improved quality of the fruit.

Systems Approach to Production of Vegetable Crops

By using a plasticulture management system to produce vegetable crops, a grower can increase his or her per acre production and returns. The components of a plasticulture system include plastic mulches, drip irrigation, fertigation, windbreaks, containerized transplants, row covers, high tunnels, pest management and marketing.

Specific Management Considerations

Mulch Type

The basic mulch type used in commercial vegetable production is black. Clear mulches could be used in the more northern latitudes to increase the cooler soil temperatures, but

it is important to use an herbicide to prevent weed growth under the clear mulch. The IRT (Infrared Transmitting) mulches combine the properties of clear (higher soil temperatures) and black mulch (retardation of weed growth) and have been used successfully as a substitute for clear mulches. The color of these mulches is either translucent green or brown. Newer mulch colors are red, blue, metalized silver and now biodegradable mulches are available.

Planting

Most vegetable crops are usually transplanted except for sweet corn, which is direct seeded. Vegetable transplants can be successfully produced in a wide variety of plastic containers filled with a commercial potting mix. Avoid large, overgrown transplants. At transplanting, use a starter solution that is high in phosphorous (i.e. 10-34-0) to help establish the plants. To prepare a starter solution mix 3 pounds of 10-34-0 or a similar low potassium water-soluble fertilizer in 50 gallons of transplant water. About 10 to 12 ounces of transplant water should be applied around each plant.

Cucumbers and squash can be transplanted for an early crop but are normally more difficult to transplant because of their rapid growth. Often, they will be direct seeded using one of a variety of seeders available.

Spacing

The typical spacing between mulched beds is 5 to 6 feet. The in-row spacing for muskmelon is 18-24 inches; watermelon is 24-36 inches; cucumber is 12-18 inches, summer squash is 12-18 inches, tomato 18-24 inches, pepper double row 9-12 inches apart and 12-14 inches in the row.

Drip Irrigation

Drip (trickle) irrigation was pioneered in the 1940s in England, but not until the advent of polyethylene plastics in the 1960s did field application of this efficient watering method become widespread. Drip irrigation is a method of applying small amounts of water, often daily, to the plant's root zone.

A drip irrigation system has four major components and two options.

- * Delivery system: pumps, main line, sub main line, manifold or header line, drip tape or tubes
- * Filters: sand, disc, or screen
- * Regulators: for maintaining the proper pressure in the system
- * Valves and Gauges: a wide assortment of zone, check or pressure gauges or valves

Options

- * Controller: simple electric clock or computer
- * Fertigation system: electric pumps, hydraulic pumps, venturi systems, etc.

How you put these components together and which options you choose will depend on the size of the system, the water source, the crop, and the degree of sophistication you desire. A portable system can be developed that includes the pump, gasoline engine, filters, fertilizer injector all contained on a trailer unit that can be moved from water source to water source or field to field.

Because vegetables usually are planted in rows, a drip tape or tubing with prepunched emitter holes, called a line source emitter, is used to wet a continuous strip along the row. Also, because most vegetables are considered annuals and are grown for only one season, a thin-walled disposable tubing (4 or 8 mil thick) generally is used for only one season. Less emphasis usually is placed on buried mainlines and sub-mainlines to allow the system to be dismantled and moved from season to season. Costs may be high, so a goal should be to develop an inexpensive yet functional system that allows maximum production with minimal costs. You can purchase an entire system from an irrigation dealer or adapt your own components. I would strongly recommend that one get assistance in design of their system from an irrigation dealer or professional since it might be very helpful in avoiding problems later.

Fertilizing

Fertilization depends on the inherent soil fertility, so a soil test is needed for accurate estimates of needed nutrients. To achieve the maximum benefit from the plasticulture system it is recommended that nutrients be applied via the drip irrigation system (fertigation). As a rule, all the recommended phosphorus and micronutrients and 20-30% of the recommended nitrogen and potassium can be applied in the bed prior to application of the plastic mulch and drip irrigation tape. The remaining amount can be injected into the system at various frequencies from once a day, to once a week. The frequency of injection, whether once a day, once every two days, or even once a week, basically depends on system design constraints, soil type and grower preference. The more frequent application of nutrients would decrease the chances of leaching. It is very important to monitor the application of water and to realize that fertilizer application is closely linked to water applications.

Pest Management

Another component of successful production of vegetable crops is a good integrated control program for insects and diseases. It is important to use a sprayer that generates sufficient pressure to provide good spray penetrating and coverage. This means pumps on sprayers capable of generating 200 - 400 psi. Some delay in the onset of viruses spread by the feeding of aphids on summer squash can be had using mulches with a highly reflective silver surface. Also, biological control is recommended for use in the high tunnels.

Weed Control

Use only approved herbicides between rows of plastic, because this is not considered a fallow area. A shielded application of herbicides is recommended. This will prevent herbicides from being applied on the bed of plastic and potential

injury to the melon crop from increased concentrations of herbicides in the planting hole.

Season Extension

Row Covers

Row covers can increase earliness of vegetable crops by creating a mini-greenhouse effect. The floating cover materials are easy to apply and can be used for several seasons.

High Tunnels

High tunnels encompass a crop growing system that fits somewhere between row covers and greenhouses. They are relatively inexpensive (about \$1.30/sq. ft, excluding labor), permitting entry into high tunnel crop production with limited capital. This system is particularly appealing to new-entry growers who utilize retail-marketing channels.

High tunnels are not conventional greenhouses. But like plastic-covered greenhouses, they are generally quonset-shaped, constructed of metal bows that are attached to metal posts which have been driven into the ground about two feet deep. They are covered with one layer of 6-mil greenhouse-grade polyethylene and are ventilated by manually rolling up the sides each morning and rolling them down in early evening. There is no permanent heating system although it is advisable to have a standby portable propane unit to protect against unexpected below-freezing temperatures. There are no electrical connections. The only external connection is a water supply for trickle irrigation.

Marketing

What you grow will depend on your marketing outlet and what you feel you can sell. This is probably the most important consideration in designing a production system. The nice thing about growing horticultural crops is that you have a variety of marketing options from large wholesale to retail to Community Supported Agriculture (CSA) or a mixture. My friend and mentor when I was a graduate student at Cornell University, Dr. Ray Sheldrake said, "that the definition of photosynthesis was turning green plants into green dollars". That is indeed what we all hope to do!!

Dr. Lamont is a Professor Emeritus in the Department of Plant Science, Penn State University and can be contacted via his e-mail, wlamont@psu.edu.

PVGA is Transitioning to a New Membership Renewal and Convention Registration Process

At its May meeting, PVGA's Board of Directors approved a proposal to its transition to MemberClicks Pro, an association management software, which will handle membership and convention registration.

Membership Renewal Invoices

This software provides staff with the ability to email your membership renewal invoice directly to you and give you the option to pay online via credit card or send a check if preferred.

We will continue to mail renewal invoices to those members without an email address. If you receive your invoice by mail and have an email address, please provide it to us so we can email you information in the future.

Convention Registration

We've heard you! Many people had indicated that having the membership and convention registration on one form was very confusing. The forms will be separate going forward.

When convention registration is open, those with an email address will be sent a link to register for the convention. As with your membership renewal invoice, you will be given the option to pay online with a credit card or mail your payment. You will be required to log in to register (see below for instructions on logging

in). Those who do not have an email address, will be mailed a form to complete and send in with payment. The form will be simplified to make it easier for you to complete.

Your Profile

The MemberClicks software will also provide those with internet access the ability to see your information – including your address, phone number, email address, business information, as well as invoices for membership and convention (including if the invoices have been paid).

To access MemberClicks on PVGA's custom site go to <https://pvga.memberclicks.net/>. Type in your username (your email address). Since this will be your first time logging in, you will need to reset your password. Once you reset your password, you can view your profile, and even update your contact information if needed.

Do not hesitate to contact PVGA staff at pvga@pvga.org or 717-973-5915 for assistance with online access or questions about membership renewal and/or convention registration.

We feel confident this new process will streamline the process for everyone and make renewing your membership dues, as well as registering for the convention, easier and more efficient!


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PVGA Member Highlight: B&R Farms

Submitted by Morgan Bond



of various cultivars and combinations. We grow a large array of annual flowers, cascading foliage, a few cool mints, and garden vegetable plants for spring sales.

Mother's Day is our busiest greenhouse holiday, seeing a lot of sales to honor moms and mother figures in all families. There's been a recent push for hanging baskets as the backdrop for outdoor prom photos in late May. A lot of our inventory decisions for the next year are based on sales in the spring, front porch performance over the summer, greenhouse meetings throughout the year, and in-person evaluations at the Penn State Field Trials in late July. All new cultivars are tested in Robin's pots for real world viability.

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Hello from Ringtown Valley! B&R FARMS is a multi-generational family farm, located in northern Schuylkill County. This time of year is a little quieter for our business, although not any less busy. B&R Farms was established in 1980 by Barron "Boots" and Robin Hetherington with Boots's brothers Rick and Randy. Boots, Robin, Rick and Randy were named Pa. Master Farmers in 1995.

Today, Boots and Robin own and operate B&R Farms. Their daughter, Morgan is looking ahead to manage the next generation of the business. Morgan's involvement with the farm marks 8 generations of family establishment since the original acreage was tilled in 1842.

Over the past 40+ years, we've grown annual greenhouse flowers, pick-your-own strawberries, and multiple varieties of produce – cabbage, bell peppers, tomatoes, cucumbers, asparagus, eggplant, and sweet corn. Our remaining acreage is a mixture of field corn, soybeans, rye and hay.

Mid-April through June is our busiest customer-facing season. Plugs, seeds and growing materials start arriving in February. Robin designs and builds around 500 hanging baskets





Greenhouse season starts to wind down near Memorial Day, a great time for cemetery planters, geraniums and vegetable plants. June 1st rolls around and the one thing on everyone's mind is "How soon will the strawberries be ready?" No matter what month of the year it is, we have yet to find a season or a time when someone isn't ready for fresh, local strawberries.

Our strawberries are grown in matted rows, covered with straw in the winter, and rotated every 4-5 years based on annual yields. We also offer fresh cut asparagus which bridges between greenhouse and strawberry season, and pick-your-own peas around mid-June.



Pick-your-own looks different for every business. We organize our fields by variety (early, mid, and late) in an effort to expand our harvest window to 27-30 days. We have a covered wagon that moves with the harvest every day. Find the red-and-white awning and you've found today's picking spot. Father's Day is the workhorse of the month. Retail quarts are in high demand, pick-



ers come out in droves, and church groups come to fill their baskets for socials and fundraisers. Photo shoots in the field with newborns and toddlers has become a trend. Families have marked strawberry picking as an annual tradition and we love to see the generations of our customers grow.

We rely on a team of local high school and college students to pick strawberry quarts for retail and wholesale, pull weeds in spring and fall to maintain the fields, and help with the heavy lifting of hay season. This time of year, we're pulling and prepping Indian corn for local farm markets. Second cutting hay is also in process. The field corn and soybeans are filling out for the impending grain harvests.

Once the winter truly sets in, we look to spread straw on the strawberries and catch up on agricultural meetings and conventions. In January, our family and friends volunteer their time at the PA Farm Show selling Strawberry Surprise for PVGA to benefit research.



\$1M USDA Grant to Perfect Weed Killing Method in Organic Crop Production

Jeff Mulhollem



In anaerobic soil disinfestation, after organic amendments are mixed in, the soil is irrigated to saturation and covered with impermeable plastic, as shown here, creating no-oxygen conditions that suppress weeds.

UNIVERSITY PARK, Pa. — Weeds are a major factor limiting yield in organic vegetable and other horticultural crop systems, and the lack of effective biological weed-management solutions is a significant obstacle to the adoption of organic farming practices. To address this problem, the U.S. Department of Agriculture (USDA) has awarded a four-year, \$1 million grant to a team led by plant scientists and an economist from Penn State to investigate anaerobic soil disinfestation, a microbial-driven process to manage weeds, to support transitioning from conventional to organic production systems.

“Anaerobic Soil Disinfestation — often referred to ASD — is emerging as a broad-spectrum biological soil treatment for the management of soilborne pests and pathogens, including weeds,” said research team leader Francesco Di Gioia, associate professor of vegetable crop science in Penn State’s College of Agricultural Sciences. “It is an ecological alternative to chemical soil fumigation. The method consists in incorporating easily de-



Weeds are a major factor limiting yield in organic vegetable and other horticultural crop systems. This research will investigate anaerobic soil disinfestation, a microbial-driven process to manage weeds, to support transitioning from conventional to organic production systems.

composable organic amendments into the soil, followed by irrigation to saturation and soil cover with impermeable plastic.”

Soil saturation enhances the decomposition of organic matter, and the anaerobic conditions foster the accumulation of volatile fatty acids and other organic acids in amended soil that are toxic to weeds. The lack of oxygen suppresses weed seed respiration, and those anaerobic conditions result in changes in soil temperature and pH levels that kill weed tissues that could propagate new plants.

The primary goal of this project, according to Di Gioia, is to increase the profitability and sustainability of organic vegetable and other specialty crop production systems and to facilitate the transition from conventional to organic production practices. This can be accomplished, he explained, by optimizing and integrating the use of anaerobic soil disinfestation as a biological weed-management tactic in specialty crops systems, while promoting soil health.

The project will include coordinated research activities, including on-farm demonstration trials to evaluate the efficacy of the tactic in suppressing key weed species in Florida and Pennsylvania, two states representative of the U.S. Northeast and Southeast regions.

“In addition to assessing the efficacy of anaerobic soil disinfestation in suppressing specific weeds, the project will allow us to investigate the impact of ASD on soil-plant nutrient dynamics,

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Allium Leafminer Active in Southeastern PA

Tim Elkner

Fall emergence of allium leafminer (ALM) was detected in Lancaster County on September 18. ALM attacks plants in the Allium genus including onion, garlic, leek, scallions, shallots, and chives. First signs of activity are usually a linear series of round white dots on allium leaves. The white dots are made by the female of her ovipositor. Both males and females feed on leaf sap, and egg-laying occurs at this same time. You can also distinguish the adult fly by the orange patch on the head, and the wings folded horizontally over its back. The flies tend to be found at the tips of the leaves in the morning. A good place to look for signs of ALM is on green onions and leeks if you have them on your farm.

ALM was first reported in 2015 and has spread throughout PA and the region. While ALM does not seem to be present in high numbers on all farms (or even present at all), small numbers of maggots present in the leaves and/or stems will make a crop unmarketable. I still receive calls from growers finding this insect for the first time on their farm.

ALM has two generations per year. It overwinters as a pupa in leaf tissue or adjacent soil, emerges in the spring, and adult flight occurs over 4-5 weeks. Eggs are laid in allium leaf tissue. Larval development progresses to the pupal stage but is then delayed as the pupa undergoes summer aestivation (a resting period with little to no development), and they do not emerge again until the fall.

Control measures are only needed during the adult flight period to target adults, and very shortly after to target developing larvae. Control can be achieved with row covers during adult flight, or insecticides. Foliar applications of Scorpion or Venom (dinotefuran), Exirel (cyantraniliprole) and Radiant (spinetoram) are the most effective at controlling both adults and larvae in the leaves. Growers should be sure to rotate chemistries to help manage insecticide resistance. Chemigation treatments are not effective. Alliums have a very waxy leaf, so including a spreader-sticker in any insecticide applications is recommended unless the label states not to use one. For organic control two consecutive sprays of Entrust (spinosad) mixed with a 1-5% v/v solution of a soap, applied 2-4 weeks after the first detected ALM emergence is recommended. An additional application of pyrethrins plus azadirachtin with an adjuvant (choose a product that does not raise the spray solution above pH of 6.5) is also needed.

If you plan to use row covers for control, first scout your fields closely to be sure that ALM are not already active in the field, so you do not trap adults under the cover. Row covers need to stay in place until the end of adult emergence which generally lasts up to 6 -7 weeks or until the first hard freeze.

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Penn State Extension to Host FSMA Training Courses

The Food Safety Modernization Act (FSMA) is the most comprehensive change to produce farming in the past 70 years. Farms growing more \$30,000 in gross Produce sales are covered under this Act. The FSMA law covers growers who grow any fruit or vegetable crop normally consumed raw. Growers who exclusively grow crops not normally consumed raw like potatoes, pumpkins, and sweet corn, for example, are not covered by FSMA

One of the requirements of the law is that all growers covered under the Act attend a Grower Training Course. Participants will receive a notebook and receive a certificate of attendance. The cost for the course is typically in the \$150 range. This year we have funding from PDA to reduce the cost to \$40 per PA grower. The course will cover seven hours of instruction time that will be spent on the following modules:

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- Agricultural Water (Part 1: Production Water and Part 2: Postharvest Water)
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

Dates and Locations for Penn State in person trainings: Others may be added

December 18, 2024, Adams County Extension Office, Gettysburg

February 4, 2025 Yoder's Country Market, New Holland

February 10, 2025, Soergal's Orchard, Wexford

February 19, 2025 Crawford County Extension, Meadville

March 11, 2025 Union-Snyder CAA, Selinsgrove

March 26, 2025 Bucks County Extension Office, Newtown

Two Day FSMA training webinar

November 12 and 13th, 2024 10 AM - 3 PM each day

April 8 and 9, 2025 10 AM - 3 PM each day

To register for these trainings, please visit <http://extension.psu.edu/fsma-grower-training> or call **1-877-345-0691**. The standard registration fee is \$150 per person; a discounted price of \$40 per person is available for Pennsylvania commercial growers through support from the Pennsylvania Department of Agriculture. Checks, credit cards, and debit cards are accepted. Please direct any questions about the program to Jeff Stoltzfus at (717)283-2597.

Additional FSMA training sponsored by Cornell Extension grant for \$20:

Feb. 20, 2025 Wayne County Extension Office, Honesdale, PA
Contact: Cornell Cooperative Extension | Events (sullivance@cornell.edu) to register

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\$1M USDA Grant to Perfect Weed Killing Method — continued from page 9

investigate the mechanism of suppression and examine the impact of the treatment on the soil microbiome,” Di Gioia said.

To assess the viability of ASD, he added, team member Claudia Schmidt, Penn State assistant professor of marketing and local/regional food systems, will study its economic sustainability.

“She will identify obstacles to the adoption of this new biological solution,” Di Gioia said. “She will oversee the economic analysis and assessment of the obstacles to adoption.”

This grant is part of an investment of nearly \$121 million to advance research and extension activities that aim to solve key challenges facing specialty crop and organic agriculture producers recently announced by the USDA. The investment includes \$70.4 million to support specialty crop production research across the United States and \$50.5 million to support farmers and ranchers who grow and market high-quality organic food, fiber and organic products.

Specialty crops are defined in the Farm Bill as fruits and vegetables, tree nuts, dried fruits, and horticulture and nursery crops, including floriculture. This investment is part of the USDA’s National Institute of Food and Agriculture’s Specialty Crop Research Initiative.

Other research team members at Penn State include: Caio Brunharo, assistant professor of weed science; Francisco Dini-Andreote, assistant professor of phytobiomes; and Claudia Schmidt, assistant professor of marketing and local/regional food systems; along with Leah Fronk and Glen Bupp, horticulture educators in Penn State Extension. Team members from other institutions include Erin Roskopf, research leader/research microbiologist, and Jason Hong, research molecular biologist, with the U.S. Department of Agriculture’s Agricultural Research Service U.S. Horticultural Research Laboratory in Fort Pierce, Florida; and Natosha Finley, assistant professor of chemistry, Central State University.



Anaerobic soil disinfestation consists of incorporating easily decomposable organic amendments into the soil, shown here, followed by irrigation to saturation and covering the soil with impermeable plastic.

Photos by Francesco Di Gioia/Penn State. All Rights Reserved.

Call for PVGA Young Grower Award Nominations

PVGA’s Leadership and Recognition Committee is seeking nominations for the PVGA Young Grower Award. This award is designed to recognize outstanding young growers in the vegetable, potato, or berry industries. The following criteria must be met for this award:

- PVGA Member who is 35 years old or younger
- Successfully growing vegetables, potatoes or berries
- Has contributed to advancing or promoting the Pennsylvania vegetable, potato, or berry industry.

If you would like to nominate a young grower for this year’s award, email your nomination (include the nominee’s name and a paragraph explaining why you feel they deserve to receive this award) to pvga@pvga.org or mail to Pennsylvania Vegetable Growers Association, 908 N 2nd St, Harrisburg, PA 17102

Peppers

The guys picked a few peppers the other day and I thought it made for a colorful picture. The green ones at the bottom and top are cubanelle, red bell, one container of hot banana, and of course, baby bell. The baby bell are actually made up of two varieties. They both look the same except that one is yellow and one is red. It makes for a beautiful color combination so they are just as pretty as they are tasty. They are a perfect snacking pepper.



2025 Mid-Atlantic Fruit and Vegetable Convention Opens January 28 at the Hershey Lodge

The 2025 Mid-Atlantic Fruit and Vegetable Convention will be held at the Hershey Lodge January 28-30. Multiple concurrent educational sessions will be featured all three days along with a large industry trade show. A farm market bus tour and several pre-convention workshops will be offered on January 27, 2025.

Over 2,200 fruit, vegetable, and berry growers as well as other industry personnel from throughout the mid-Atlantic region and beyond gather each year for what has become one of the premier grower meetings on the East Coast. The 2025 Convention will be the 48th annual gathering of growers at the Hershey Lodge in Hershey, PA.

Plans are being made to offer exceptional educational sessions on a full range of topics in tree fruit, vegetable, small fruit, and potato production plus retail and wholesale marketing. Greenhouse ornamental and cut flower sessions plus sessions on urban agriculture will be included as well. Also offered will be special sessions presented in Spanish for Spanish-speaking industry members. A more detailed schedule with topics and speakers will be announced in the coming weeks.

The day before the main convention opens, growers can choose between a bus tour of farm operations in Lancaster County or several different workshops. The workshops include Microgreens, Apple Tree Decline Summit, Pennsylvania Pesticide Applicator License Training, and a YGA offsite event.

Tuesday kicks off the opening day of the convention which consists of a keynote presentation, in addition to sessions on vine crops, green beans, food banking, drones, agro forestry, tree fruit, pumpkins, hydroponics, general vegetables, and marketing sessions on direct marketing, online sales, and marketing with reels.

Sessions on the Wednesday include greenhouse floriculture, tomatoes, organic, root crops, small fruit, tree fruit, greenhouse vegetables, peppers/eggplants, stone fruit, agritourism, marketing sessions on consumer & food trends, POS excellence, and Facebook, several labor/farm management sessions, and sessions for Spanish speaking workers in the fruit and vegetable industries.

The final day of the convention focuses on high tunnel, cut flowers, potatoes, sweet corn, small fruit, stone fruit, tree fruit, gener-

al vegetables labor/farm management, marketing technology and tools, digital and social media marketing, and additional labor/farm management sessions.

The convention has been jointly sponsored by the State Horticultural Association of Pennsylvania, the Pennsylvania Vegetable Growers Association, the Maryland State Horticultural Society, and the New Jersey State Horticultural Society since 1978. In 2014, the Virginia State Horticultural Society joined the convention. Extension personnel from Penn State, University of Maryland, Rutgers, and Virginia Tech assist with organizing the three days of educational sessions.

The Trade Show will be in Great American Hall and Aztec Room with additional booths located in the Confection Lobby. Specialized horticultural equipment, farm market merchandise, and packaging will all be on display along with information on the latest seed varieties, fruit varieties, pesticides and other supplies and services for the commercial grower.

Many pesticide applicator update training credits will be available to Pennsylvania, Maryland, New Jersey, and Virginia growers attending the sessions. Arrangements are also being made to offer respirator-fits tests for pesticide applicators. The program covers nearly every aspect of fruit, vegetable, potato and berry production. Commercial growers should not pass up this terrific educational opportunity, or the opportunity to network with fellow growers and other in the industry.

The eighteenth annual Mid-Atlantic Cider Contest will be conducted during the convention to determine the best tasting cider produced in the region. On January 28, fruit and vegetable growers will gather for the annual Fruit and Vegetable Growers Banquet which will include awards and recognitions. The evening of January 29 will feature an ice cream social in the evening in addition to a reception for apple growers.

Registration is required for attendance at the Convention trade show and/or educational sessions. Registration with any of the five sponsoring organizations provides attendance to any of the sessions. The Monday workshops, bus tour, and meals are separate registration fees.

Crop Growing Expo

PVGA will have a booth at the Crop Growing Expo January 15-16, 2025 at Spooky Nook in Manheim. Contact us at pvga@pvga.org or 717-973-5915 if you are interested in helping us at the booth.



Vegetable Grower's Twilight Recap

Glen Bupp



The evening of Thursday, September 4th was exceptionally beautiful in Western Pennsylvania. In Gibsonia PA, the field of tomatoes and peppers at Harvest Valley Farms is framed by woods that filter the setting sun in a way that makes it difficult to want to head back to the packing garage. This was the backdrop for the grower's twilight meeting on that night and attendees took advantage of every bit of light in the field to discuss topics relating to field grown pepper and tomato production.

Of particular interest was Dave King's succession planting schedule for his tomatoes and peppers. Up to four successions keeps their market stocked with tomatoes when shoppers want them most. It also seems to help with disease and insect pressure, which was limited, given the time of year. The diverse experience and background from those attending contributed to engaging conversation. Dr. Francesco DiGioia, Associate Professor of Vegetable Crop Science at Penn State, also attended. For him and growers alike, it was an excellent opportunity for one-on-one conversation, relationship building and research development.

The King family sweetened the dark walk back to the garage with pie from their market bakery. They really know how to host; and I think I can speak on behalf of all attendees that we had a great night.

Growers Classified Ads

VGA offers a classified service to vegetable, potato, and berry grower members. Classified ads for used equipment or surplus supplies will be published at no cost in a Growers Classified section.

The ads will be published in the printed newsletter and included in the email update.

Ads will be restricted to equipment or supplies specific to vegetable, potato, and berry production, not general farm equipment. This section is designed to focus specifically on items of interest to our growers. Businesses that commercially sell equipment or supplies will not be able to advertise for free.

There are several ways to place an ad

- Email to pvga@pvga.org
- Mail to PVGA | 908 N 2nd St, Harrisburg, PA 17102
- Fax to 717-236-2046

Harden Family Farm & Market Twilight Meeting

A beautiful night for a walking tour of the Harden Family Farm & Market. With small attendance willing to explore 4 high tunnels of tomatoes, one high tunnel with vertical beans growing, a greenhouse with blooming with herb plants and a straw mulched field garden of peppers. All examples of how to combat the challenges of crop damage through weather and animals. Keeping productivity high and loss as minimal as possible. Finally ending up in the Red Barn Market. Saw how the produce is washed, dried and stored. Afterwards everyone was treated to sandwiches, homemade cookies, muffins and sweet iced tea.



Information and

recipes

Corner

New to PVGA News! Each issue will feature a recipe that includes vegetables and/or fruit.

Beets

Submitted by Art King of Harvest Valley Farms

David loves to grow beets. He tries to have a big crop at the end of the season so he can keep them over winter and have another crop of ours to sell in the early spring. Well this year his efforts have really paid off. He has two nice fields of beets that are ready right now. There are both regular red beets and golden beets in these fields. The greens are absolutely perfect too, which is sometimes difficult to get. Beets are a good seller at all of our markets. Here is the scoop on Red Beets:

Beets

Beets are an ancient, prehistoric food that grew naturally along coastlines in North Africa, Asia, and Europe. Originally, it was the beet greens that were consumed; the sweet red beet root that most people think of as a "beet" today wasn't cultivated until the era of ancient Rome.

Beets are high in immune-boosting vitamin C, fiber, and essential minerals like potassium (essential for healthy nerve and muscle function) and manganese (which is good for your bones, liver, kidneys, and pancreas). Beets also contain the B vitamin folate, which helps reduce the risk of birth defects. Add all that to the fact that they are the highest sugar vegetable.

The stems and leaves should be eaten within a couple of days, but the roots will keep for weeks.



Beet and Sweet Potato Fries

Ingredients

Peppercorn Mayonnaise:

1/2 cup reduced-fat mayonnaise
1 teaspoon pink peppercorns, crushed
1/2 teaspoon green peppercorns, crushed
1/2 teaspoon coarsely ground pepper, divided

1 large sweet potato (about 1 pound)
2 tablespoons olive oil, divided
1/2 teaspoon sea salt, divided
2 large fresh beets (about 1 pound)

Directions

In a small bowl, combine the mayonnaise, peppercorns and 1/4 teaspoon ground pepper. Cover and refrigerate until serving.

Peel and cut sweet potato in half widthwise; cut each half into 1/2-in. strips. Place in a small bowl. Add 1 tablespoon oil, 1/4 teaspoon salt and 1/8 teaspoon pepper; toss to coat. Spread onto a parchment-lined baking sheet.

Peel and cut beets in half; cut into 1/2-in. strips. Transfer to the same bowl; add the remaining oil, salt and pepper. Toss to coat. Spread onto another parchment-lined baking sheet.

Bake vegetables, uncovered, at 425° for 20-30 minutes or until tender, turning once. Serve with peppercorn mayonnaise.

Cherry Tomato Panzanella

Submitted by Art King of Harvest Valley Farms

This easy 20-minute recipe for Cherry Tomato Panzanella Salad is cooked in a skillet to burst the cherry tomatoes. We've added in garlic, herbs and balsamic vinegar to season it.

Ingredients

1/4 cup extra-virgin olive oil
4 cups cubed crusty farm bread
2 cloves garlic, peeled and sliced
4 cups cherry or grape tomatoes
1 teaspoon kosher salt
1 tablespoon chopped fresh oregano or 2 tablespoons chopped fresh basil
2 teaspoons aged balsamic vinegar
Freshly cracked black pepper to taste

Directions

Heat oil in a 10-inch cast-iron skillet over medium-high heat until shimmering but not smoking. Add bread and cook, stirring occasionally until browned and crusty in places, 5 to 6 minutes.

Add garlic, and cook, stirring, until the garlic is fragrant and starting to brown, 1 to 2 minutes.

Add tomatoes and salt and cook, stirring, until the tomatoes start to blister, 1 to 2 minutes.

Remove from the heat and stir in basil or oregano, vinegar and pepper. Continue stirring as it cools in the hot skillet, about 5 minutes. Serve warm.



The cherry tomatoes are coming in, and there are a lot of them. Of course the variety is quite large. We grow 7 different types of cherry/grape tomatoes. Why so many you ask? I have often described us as being "gluttons for variety", because we grow so many different types of things. . The other reason is because I am an admitted "tomatoaholic". I love tomatoes. And cherry tomatoes count. Sometimes instead of putting a tomato on a sandwich, I'll pop a cherry tomato or two in my mouth with each bite.

Honey Roasted Delicata Squash Rings

Submitted by Tina Forry

Ingredients

.5 to 2 lb Delicata squash
3 tbs butter, melted
1 tbs honey

Directions

Preheat oven to 375 degrees.

Lightly oil a baking sheet with sides.

Slice off ends of squash and scoop out seeds.

Cut into 1 1/2 inch rings.

Brush both sides of rings with butter.

Roast for 15 minutes.

Add the honey to remaining butter.

Turn the squash over, brush with honey butter and roast for 5 min or until tender.

Serve hot.

Candy Onion Bread

Submitted by Peter Flynn

Ingredients

3 cups self-rising flour
3 tbs sugar
12 oz beer at room temperature
1 cup chopping candy onion, divided
1 tsp parsley or dill
2 tbs butter

Directions

In large bowl, combine flour, sugar, beer parsley or dill, and 1/2 cup onion and mix well.

Pour into greased 9 x 5 pan and top with remaining 1/2 cup onion.

Bake at 350 for 30 minutes.

Brush top with butter and bake an additional 20 minutes until brown.

Cool on rack

Information and

recipes

Corner

Dave's vigilant irrigation and fertilization of the cherry tomatoes have paid off. The yield is fantastic. It's hard just to get them all picked. We have started using greenhouse plant racks to store them in the washroom building just to not take up so much floor space. Most people think of them as strictly a salad additive, but we have been eating them lately in recipes that require them to be cooked. Here is one that also uses our fairy tale eggplant:

Fairytale Eggplant and Miniature Tomatoes

Submitted by Art King of Harvest Valley Farms

Ingredients

1 quart fairytale eggplant, cut lengthwise or round slices
1 pint grape/cherry tomatoes
1 tbsp olive oil
2 tbsp balsamic vinegar
kosher or sea salt and pepper, freshly ground

Directions

Heat oven to 450 degrees. Prepare a sheet pan with an edge silicon baking mats, parchment paper, or foil

Cut off stem and slice fairytale eggplants in half lengthwise. Toss eggplants and tomatoes with 1 tablespoon each olive oil and balsamic vinegar and salt and pepper in a mixing bowl.

Spread coated vegetables onto a sheet pan so vegetables are in a single layer. Place pan in preheated oven to roast for about 15 minutes or until tender and slightly charred.

Finish with 1 more tablespoon of balsamic vinegar and salt and pepper to taste. Serve warm. Eat with fish and a whole grain like wild rice, sorghum, quinoa, or farrow. Enjoy!



Spicy Butternut Squash Soup

Submitted by Peter Flynn

Ingredients

3 ¾ lbs butternut squash (about 2 medium)	Salt to taste
2 tbs olive oil	Jalapeno chile rings to taste
5 cups (or more) chicken stock or reduced sodium broth	1/8 tsp saffron threads
1 ½ tbs minced jalapeno chiles	

Directions

Peel the squash. Cut each squash lengthwise into halves. Scoop out the seeds. Cut enough of the squash into thin slices to measure 1 cup. Cut the remaining squash into 1-inch pieces. Sauté the squash slices in the olive oil in a large heavy skillet over medium-high heat for 8 minutes or until brown. Place in a large heavy stockpot. Add the remaining squash, 5 cups chicken stock, and minced jalapeno chiles. Bring to a boil and reduce the heat.

Simmer for 25 minutes or until the squash is very tender. Purée in batches in a blender. Return to the stockpot. Season with salt. Return to a simmer, adding additional stock if needed for the desired consistency. Stir in jalapeno chile rings to taste and saffron.

Simmer for 2 minutes. Ladle into serving bowls.

Yield: 6 servings

Spicy Marinara Sauce

Submitted by Peter Flynn

Ingredients

1 large Candy Onion, cut into strips
2-4 tbs olive oil
2 tbs tomato paste
1 qt tomato sauce
2 cups water
1 tsp basil
1 tsp oregano
1 tsp salt
1 clove garlic
¼ - ½ tsp crushed red pepper

Directions

Sauté onion in olive oil for 5 minutes

Add remaining ingredients and simmer partially covered for 2 hours

If there is Such a Thing as a Perfect Crop

Submitted by Art King of Harvest Valley Farms

If there is such a thing as a perfect crop, this is it. The fall squashes: Acorn, Butternut, Delicata, Honey Nut, Spaghetti, and a few specialty pumpkins and gourds make up this beautiful picture. We have spent many hours to get it to look like this and although they look perfect, it's not over. We have to make sure no groundhogs or deer eat the fruit just starting to form on the plants. Don't worry, I pass by these fields every day to pick sweet corn, so I will be vigilant.



Pumpkin Cheesecake

Submitted by Tina Forry

Ingredients

1 cup graham cracker crumbs
1/2 tsp cinnamon
1/4 cup melted butter
3-8 oz pkg cream cheese
5 eggs
2 cups mashed pumpkin
1 tsp vanilla
1/4 cup flour
1/2 tsp cinnamon
1/4 tsp nutmeg (I usually omit the nutmeg. You could also substitute pumpkin pie spice for the cinnamon and nutmeg.)

Directions

Combine crumbs, cinnamon & butter.

Press into the bottom of a 9 in. springform pan and refrigerate.

Beat cream cheese & sugar until smooth.

Beat in eggs & vanilla.

Add pumpkin & mix well.

Beat in flour, cinnamon & nutmeg until smooth.

Bake at 325 for approximately 1 hour or until edge is set but center is still soft.

Chill at least 2 hours before serving.

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