

# VegNet

## *The Vegetable and Fruit Crops Teams Newsletter*

<http://vegnet.osu.edu>

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## **The Wayne County IPM Scouting Report May 9-13**

*From Roy Lewandowski, Extension Educator Wayne County*

In general, plant growth and development has been slow due to below-average temperatures. Growers have cucumbers, zucchini, summer squash, melons, green snap beans, and sweet corn under row covers. Plants are slowly growing as we wait for warmer temperatures. Sweet corn ranges from emerging to V3. Slugs are present in some fields with damage from slug feeding ranging from slight to 30%. Scouts also reported bird damage in one sweet corn field at 2%. Scouts report that cool season vegetables such as peas, cabbage, cauliflower, broccoli, onions, and garlic all look good at this point. Thrip populations on onions and garlic have increased slightly from the past week but still remain well below threshold levels. Some light slug and flea beetle damage has been noted on cabbage and broccoli. The most common condition that scouts are noting is lack of air movement and ventilation in high tunnel-grown tomatoes. Wet leaves from condensation and botrytis gray mold is showing up in some high-tunnel tomatoes. Some catfacing and zippering on developing tomato fruit has been noted due to pollination during cold temperatures. Overall, a return to more seasonably normal temperatures would be helpful for plant development and growth.

# Review of Cicada Control by Insecticide

(See longer article in VegNet on 4/27/16)

From Celeste Welty, Extension Entomologist

Fruit plantings should be scouted frequently to look for the start of egg-laying injury, starting one week after the cicada calling begins. Chemical control can be used by applying insecticide, starting when egg laying begins and, if needed, repeated 7 to 10 days later. Insecticides that are effective and have cicadas listed as a target pest on the label are Asana (esfenvalerate), Warrior (lambda-cyhalothrin), Baythroid (cyfluthrin), and Danitol (fenpropathrin), which are all restricted-use products. Beware that these products are in the pyrethroid group, which are known to be harsh on some natural enemies and thus their use can lead to flare-ups of spider mites and San Jose scale. Also effective is Sevin (carbaryl), which is not restricted use, but it should be used with caution during 30 days after bloom due to fruit thinning effects. Insecticides known to be effective for cicada control but which do not have cicadas listed as a target pest on the label are Mustang Max, Brigade, and Vydate, as well as the pre-mixes Hero and Gladiator; these are all restricted-use products. Assail is not restricted-use and is known to have some activity on cicadas. Danitol, Brigade, and Hero have broader activity than other pyrethroids and can kill spider mites but only if used at the maximum labeled rate. An alternative chemical approach is to use Admire Pro (imidacloprid) as a soil drench; cicada is not listed as a target pest on the Admire label, but Admire is known to provide effective control.

PRODUCT	Apple	Peach	Grapes	Blueberry	Brambles
Sevin*	Allowed <sup>PL</sup>	Allowed <sup>PL</sup>	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>
Asana (RUP)	Allowed <sup>PL</sup>	Allowed <sup>PL</sup>	Not allowed	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>
Baythroid (RUP)	Allowed <sup>PL</sup>	Allowed <sup>PL</sup>	Allowed	Not allowed	Not allowed
Danitol (RUP)	Allowed <sup>PL</sup>	Allowed <sup>NL</sup>	Allowed <sup>PL</sup>	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>
Warrior (RUP)	Allowed <sup>PL</sup>	Allowed <sup>PL</sup>	Not allowed	Not allowed	Not allowed
Mustang Max (RUP)	Allowed <sup>NL</sup>				
Brigade (RUP)	Not allowed	Not allowed	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>
Hero (RUP)	Not allowed	Not allowed	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>
Gladiator (RUP)	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>	Allowed <sup>NL</sup>	Not allowed	Not allowed
Vydate* (RUP)	Allowed <sup>NL</sup>	Not allowed	Not allowed	Not allowed	Not allowed
AdmirePro, for soil	Allowed <sup>NL</sup>				

Summary of insecticide options for periodical cicada control on fruit crops.

Allowed<sup>PL</sup> = Product registered for use on crop, and periodical cicada is a target pest listed on label for crop.

Allowed<sup>NL</sup> = Product registered for use on crop, but periodical cicada is **NOT listed** on label as target pest.

\* Beware of fruit thinning effects during 30 days after bloom.

# Start Strong with Effective Vegetable Insect Control

*From Scott Bishop, DuPont Crop Protection*

Vegetable growers are benefitting from a tool that helps produce stronger crops in the field: DuPont™ Verimark® insect control powered by Cyazypyr®. Growers were able to take advantage of Verimark® early in the season, with outstanding results due to effective vegetable insect control.

As an early season, soil-applied insect control product, Verimark® is the first in its class to provide cross spectrum vegetable insect control, including sucking and chewing pests, through systemic activity. Key pests controlled include whiteflies, aphids, leafminers, loopers, thrips, beetles and Lepidopteran species.

“Verimark® helps crops start strong and manage stress better throughout the season, increasing the opportunity for excellent yields at harvest,” reports Joe Mares, portfolio manager, DuPont Crop Protection. “In commercial fields and research plots, we’ve consistently seen greater uniformity, better size and bigger yields in a variety of crops, thanks to enhanced vegetable insect control provided by Verimark®.”

A study conducted by the University of Massachusetts found that despite heavy cabbage maggot and flea beetle pressure, cabbages protected by Verimark® were significantly larger and heavier than those treated with the grower standard program.

Mares says growers who have experienced the benefits of Verimark® are eager to incorporate it into their crop protection programs again. “Verimark® is an excellent option that will help growers protect their investments while meeting other needs such as worker protection and environmental stewardship.”

Verimark® is labeled for use on a variety of crops, including fruiting vegetables such as tomatoes and peppers, cucurbits, leafy vegetables and brassica crops. The Verimark® EPA registered label contains the statement, “This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds if bees are foraging in the treatment area.” In line with integrated pest management and good agricultural practices, insecticide applications should be made when pollinators are not foraging to avoid unnecessary exposure. DuPont™ Verimark® is not registered for sale or use in all states. Contact your DuPont representative for details and availability in your state.

Lorsban and Entrust SC are registered trademarks of Dow AgroSciences LLC.

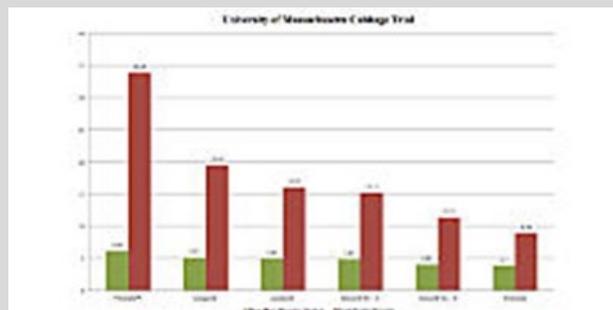
The information provided on this article is for reference only. Always refer to the product labels for complete details and directions for use.

## University of Massachusetts Cabbage Trial

Source: Trial EAD-14-756. University of Massachusetts, 2014. Application rates and methods are as follows: Lorsban®: 2.4 fl. oz./acre, banded application over row after transplant. Verimark®: 13 fl. oz./acre, tray drench. Coragen®: 5 fl. oz./acre, tray drench. Entrust A: 10 fl. oz./acre, tray drench followed by banded application at first adult flight, repeated at 16 day intervals as needed. Entrust B: 10 fl. oz./acre, banded application at first adult flight, repeated at 16 day intervals as needed.



A. Cabbage from the trial



# The Protecting Pollinators—Some New Resources

*From Jim Jasinski, IPM Program Coordinator*

Over the past few years there have been plenty of articles detailing the decline of honey bees and pollinators in general, much of it revolving around varroa mite infestations, environmental stresses, viruses, and pesticides. Since pollinators are responsible for about one out of every three bites we take, it is important to understand how to protect these insects and our food supply.

To that end, Oregon State University has published a smartphone app, in both iOS and Android platforms, as a companion piece to their publication “How to Reduce Bee Poisoning from Pesticides (PNW 591)” to help growers determine the risk a specific pesticide presents to pollinators. This is done through simple color codes (red, yellow, green) for each active ingredient or common name in their database. It’s pretty quick and simple, and worth a look.

More details about the bulletin and app can be found here: <http://extension.oregonstate.edu/news/release/2016/04/protecting-bees-pesticides-now-there's-app>

Another publication that was released last year is “Minimizing Pesticide Risk to Bees in Fruit Crops” by Emily May, Julianna Wilson, and Rufus Isaacs at Michigan State University. This extension bulletin E3245 talks about the biology of five common bee species, pesticide exposure, approaches to reduce pesticide risk, and a pesticide risk chart at the back of the bulletin. There were rumors that a vegetable equivalent was also being developed but it has not been released yet.

This publication can be found online at [http://msue.anr.msu.edu/uploads/resources/pdfs/Minimizing\\_Pesticide\\_Risk\\_to\\_Bees\\_in\\_Fruit\\_Crops\\_\(E3245\).pdf](http://msue.anr.msu.edu/uploads/resources/pdfs/Minimizing_Pesticide_Risk_to_Bees_in_Fruit_Crops_(E3245).pdf)

Lastly, if you are interested in identifying pollinators around your fields and landscape, try consulting this colorful two page handout by Scott Prajzner and Mary Gardiner at Ohio State University (<http://ale.cfaes.ohio-state.edu/outreach/bee-healthy-landscapes/bee-identification-guide>).

If you know of another publication concerning pollinator protection that you would like us to share with other growers, please forward the information to me (Jasinski.4@osu.edu) and I’ll mention it in a future article.

# Cucumber Beetle Control on Seedling Cucurbits

*From Celeste Welty, Extension Entomologist*

As growers are getting ready to direct seed pumpkin and squash crops and to transplant cantaloupe crops over the next few weeks, some questions are coming up about the pros and cons of various management tactics particularly with reference to side effects on bees. There have been many stories in the news media about how use of insecticides in the neonicotinoid group is one factor that has been contributing to bee kills. Neonicotinoids that have been widely used by vine crop growers are FarMore FI-400 as a commercial seed treatment and Admire Pro as an in-furrow soil treatment at planting.

Studies over the past few years in the Midwestern USA have shown that use of neonicotinoid seed treatments in field corn on large acreages might be having a larger effect on local bee populations than neonicotinoid use by vegetable growers on small acreages. Field corn growers often add talc to the hopper boxes of seed as a dry lubricant to prevent seeds from clumping together. If they use seed treated with Cruiser or Poncho, then the talc leftover at the bottom of the hopper boxes after seeding can contain high concentrations of neonics. If the boxes are cleaned out so that this dust settles on vegetation at the edge of fields, then any nearby flowering plants such as dandelions can become contaminated and thus be affecting bees that are foraging on affected flowers.

Neonicotinoid products are in mode-of-action group 4A, as listed on the first page of each label. Active ingredients in the neonicotinoid group are imidacloprid, which is in Admire Pro (and its generic equivalents such as Advise, Alias, Couraze, Imida, Macho, Malice, Midash, Montana, Nuprid, Pasada, Prey, Sherpa, Widow, and Wrangler) as well as in the seed treatments Gaucho, Latitude, and Concur; thiamethoxam, which is in Platinum, Actara, Cruiser, and FarMore FI-400; clothianidin, which is in Belay and Poncho; dinotefuran, which is in Venom and Scorpion, and acetamiprid, which is in Assail.

Although the neonicotinoids in general are toxic to bees, the toxicity varies quite a bit among these products, with clothianidin much more toxic than the others, and with acetamiprid the least toxic to bees. Insecticidal effects also vary among bee species; our native squash bee seems to be more tolerant of insecticides than managed honey bees.

Be aware that these neonicotinoids have true systemic activity if applied to the soil or seed, where they are taken up by the roots and reach the leaves, with the strongest concentration along the edges of the leaves. If applied to plants as a foliar spray, the neonicotinoids have translaminar activity, which means that they move from the top surface of the leaf to the bottom surface of the leaf, but they do not move from one leaf to another, and they do not move down the stem to the roots.

## Cucumber Beetle Control on Seedling Cucurbits Continued...

In many research studies done with pumpkins and cucumbers in Ohio with in-furrow and seed treatments, data show that treated plants are very toxic to cucumber beetles for about two weeks after treatment. By the time that direct seeded crops have four true leaves, the toxic effect on beetles is greatly diminished, and by the time that flowers develop, there is negligible toxic effect on beetles. This leads us to think that use of seed treatment or in-furrow at-planting soil treatment for cucurbits is a safe practice. A practice used by some growers that does not seem safe is use of neonicotinoids in drip irrigation after flowers are present; growers are encouraged to not use chemigation once flowers are present on vine crops.

## 2016 Direct Marketing Webinar Series

One-hour webinars will be offered to bring exceptional speakers to your home, office or local Extension center. If you're interested in finding out more about marketing issues, visit the website for details.

### All webinars begin at 12 noon

Feb. 18	Marketing Trends Learned from the Super Bowl	Eric Barrett & Rob Leeds	<a href="http://carmenconnect.osu.edu/marketingtrends2016/">http://carmenconnect.osu.edu/marketingtrends2016/</a>
Mar. 2	Using All Your Senses in Branding Your Business	Eric Barrett & Rob Leeds	<a href="http://carmenconnect.osu.edu/brandingyourbusiness/">http://carmenconnect.osu.edu/brandingyourbusiness/</a>
Apr. 21	Enhancing Your Web Presence	Melissa Carter	<a href="http://carmenconnect.osu.edu/enhancingwebpresence/">http://carmenconnect.osu.edu/enhancingwebpresence/</a>
May 26	Product Recall & Traceability	Eric Pawlowski	<a href="http://carmenconnect.osu.edu/productrecallandtracibility/">http://carmenconnect.osu.edu/productrecallandtracibility/</a>
June 16	Product Labeling	Emily Adams	<a href="http://carmenconnect.osu.edu/productlabeling/">http://carmenconnect.osu.edu/productlabeling/</a>
July 21	Celebrate Ohio Local Foods Week	Heather Neikirk & Patricia Barker	<a href="http://carmenconnect.osu.edu/localfoodsweek/">http://carmenconnect.osu.edu/localfoodsweek/</a>
Aug. 18	Produce Auctions	Brad Bergefurd	<a href="http://carmenconnect.osu.edu/auctionsforproduce/">http://carmenconnect.osu.edu/auctionsforproduce/</a>
Sept. 15	Pricing Your Products	Megan Leffew	<a href="http://carmenconnect.osu.edu/pricingproducts/">http://carmenconnect.osu.edu/pricingproducts/</a>
Oct. 20	Cooperatively Marketing Your Products	Hannah Scott	<a href="http://carmenconnect.osu.edu/marketingyourproducts/">http://carmenconnect.osu.edu/marketingyourproducts/</a>
Nov. 17	Using Facebook for Your Business	Duane Rigsby	<a href="http://carmenconnect.osu.edu/facebookforyourbusiness/">http://carmenconnect.osu.edu/facebookforyourbusiness/</a>
Dec. 15	Survey Results for Ohio Produce Marketers	Direct Marketing Team	<a href="http://carmenconnect.osu.edu/surveyresultsformarketers/">http://carmenconnect.osu.edu/surveyresultsformarketers/</a>

# Three things to look for on Microbe-containing Biofertilizer and Biostimulant Labels

*From Julie Laudick, Zheng Wang, and Matt Kleinhenz, Environmental Science Graduate Program and Department of Horticulture and Crop Science, The Ohio State University*

There are three major types of microbe-containing products that are advertised to help vegetable growers in various ways. Biopesticides, used to control pests and diseases, are tightly regulated and generally undergo rigorous, systematic, and third-party testing before being approved for sale. Biofertilizers and biostimulants, on the other hand, are used to enhance crop growth (especially under stress) and are essentially unregulated. They appear to be more numerous than biopesticides but are nearly absent from Extension and other reports. Nevertheless, biofertilizer and biostimulant use continues to rise.

We receive many questions about biofertilizers and biostimulants. For example, people ask which products are worth trying. A database we created (<http://u.osu.edu/vegprolab/research-areas/microbial-bioproducts/resources/microbe-containing-products/>) provides basic information on 161 OMRI-listed products, including labels for most. Here are three things to look for on a label as you consider selecting and trying a biofertilizer or biostimulant.

**1. Specific microorganisms:** Be suspicious of microbial products with minimal labels. Some labels list only “beneficial microorganisms” (with no details). Be as suspicious of these products as you would be of a fertilizer labeled as containing only “beneficial nutrients.” Labels listing the type(s) of microbes in the product are more informative. Some common plant growth promoting bacteria include *Bacillus subtilis* and *Azospirillum brasilense*, and common fungal inoculants include *Glomus intraradices* and *Trichoderma harzianum*. Products may contain one or more type(s) of microbes. Regardless, if the product contains proprietary strains, the label should at least describe what the microbes do. Common functions include enhancing phosphorus mobilization, nitrogen fixation, and hormone production.

**2. Indicators of quality control:** Look for a CFU (colony forming units) or spore count number; both are measures of the concentration of microbes in the inoculant, like a guaranteed analysis on a fertilizer label. Most bacteria-based products have between  $10^5$  and  $10^9$  CFUs per milliliter or gram (Figure 1). Few mixed-product labels, especially liquid formulations, list CFU values since it is nearly impossible to guarantee that all species will be present at a certain CFU. Despite this limitation, mixed products are common and widely used due to their versatility.  
**(Continued on next page)**

## Three things to look for on Microbe-containing Biofertilizer and Biostimulant Labels Continued...

**3. Clear application instructions:** As with chemical fertilizers, the rate and timing of a microbial inoculant application will affect its performance. Recommended biofertilizer and biostimulant application rates tend to be very low; typically less than a gallon or a pound per acre. Recall that products typically contain over a million microbial cells per milliliter or gram, so application rates can remain low. Many products are developed for application to seeds, transplants, or the root zone (Figure 2). Crop compatibility is another important aspect to consider. Some symbiotic microorganisms will only associate with specific crops. Labels listing target crops are most helpful.

The label will praise the product but not guarantee your success with it. Many crop, soil, and environmental factors influence the survival and performance of inoculants. Unfortunately, these factors are not well understood – more farmer-oriented research is needed. If you are not convinced by a product label or website, contact the manufacturer and ask them for research-based reports. If you have time, space, interest, etc., inoculate just a portion of a planting and compare what happens with it to a non-inoculated portion of the same planting. We will be happy to assist in that process, as needed.

<b>Contains the following species of Azotrophic Bacteria</b>	
<i>Azospirillum brasilense</i> .....	1x10 <sup>8</sup> CFU*
<b>inert Carrier</b> .....	99%
*(Colony Forming Units)	

Figure 1. The portion of a label listing the product's active ingredient (microbe) CFU value.

<p><b>Spray Application:</b> Apply at a rate of 12 ounces per acre (0.80kg per ha) or 1 ounce per 3,630 sq. ft. May be mixed with other organic fertilizers or plant biostimulants. Not recommended for tank mixes combining fungicides, insecticides or soluble fertilizers with a high salt index. Mix contents of the package into 15 to 50 gallons and apply evenly to a one acre area.</p> <p><b>Irrigation:</b> May be applied by overhead or drip irrigation at the recommended rate of 12 ounces per acre.</p>
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Figure 2. The portion of a label containing application instructions.

## Southern Ohio Vegetable and Fruit Update May 12<sup>th</sup>

*From Brad Bergefurd, OSU Extension Educator and Horticulture Specialist, OSU Extension Scioto County and OSU South Centers*

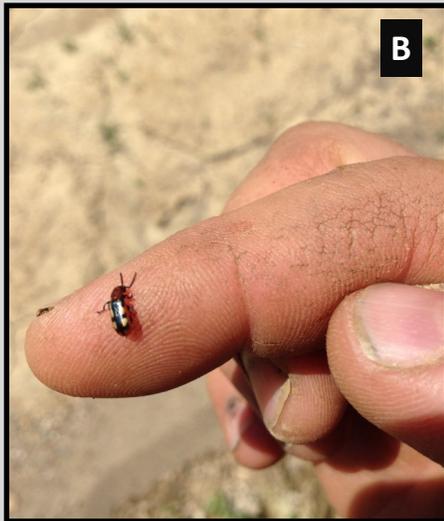
Rain, wet and muddy field conditions have been the norm again for most of the region. However, isolated areas have been dodging the heavy rains and farmers have been sneaking into fields to plant and lay some plastic. Overall, very little to no field work is getting done except for daily asparagus harvest, plasticulture strawberry harvest, high-tunnel tomato harvest, spraying fungicides on tree fruit, strawberries and grapes, spraying thinner on apples and spraying herbicides. Most areas reported some rainfall every day the past week, with total amounts ranging from .75 to over 4 inches. All remaining plasticulture sweet corn plastic was removed last weekend with the high temperatures and sunshine. With the continuous rainfall some farms are beginning to seed sweet corn in trays for transplants so that it can be transplanted to reduce the harvest gaps from the delayed plantings.

Apples and peaches continue to be pruned. Hop plantings are being fertigated, strings are being dropped and new bines are being trained. New plantings of hops are being hand-planted on beds made before the rains began and new high trellis hop systems are being installed. Deer fence continues to be repaired and new fence is being erected. Strawberry harvest is in full swing in plasticulture plantings with very high quality, yield, size, and market demand being reported. Light stink bug pressure is being reported in strawberries in Fayette County. Matted-row strawberries are at full bloom and bloom fungicides are being applied between rainfall events. Fungicide applications are being made through aerial application on malting barley that is headed out, rust disease and snail damage is being reported in malting barley. Peas and tomatoes are being staked and the first strings are being applied. Floating row covers and hoops remain in place on field pepper and tomato plantings with cool nighttime temperatures.



Photos: Plasticulture strawberry harvest is in full swing with light stink bug pressure being found. (Photos by Brad Bergefurd, Ryan Slaughter and Jones Produce)

# Southern Ohio Vegetable and Fruit Update May 5<sup>th</sup>



- A. Hop workshops continue to be well attended throughout Ohio with one being taught at Firehouse Brewery in Clermont County this week. (Photo by Gigi Neal)
- B. Asparagus beetle pressure is increasing in Asparagus. (Photo by Way Farms)
- C. Hops are being strung and trained on farms throughout Ohio and at OSU Piketon. (Photo by Barn Talk Hops and Thom Harker)
- D. All remaining plastic has been removed from plastic sweet corn this week with the higher temperatures. (Photo by Way Farms)

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER  
OHIO STATE UNIVERSITY EXTENSION

# 2016 VEGETABLE WORKSHOP SERIES



2<sup>nd</sup> Thursday, April - October

North Central Agricultural Research Station  
1165 County Road 43  
Fremont, OH 43420

## Topics

**April 14:** New Fungicide Strategies with Orondis™, Sally Miller, Plant Pathology

**May 12:** Scouting Cucurbits with Drones, Jim Jasinski, OSU Extension

**June 9:** Alternative Crop Enterprises – Barley and Hops – Are They an Option for You?, Eric Stockinger, Horticulture and Crop Science

**July 14:** The OSU Food Safety Program – What It Can Do for You, Beth Scheckelhoff, OSU Extension

**August 11:** Sweet Corn Evaluation, Field Walk, and Taste It for Yourself, Mike Gastier, OSU Extension

**September 8:** Pepper Evaluation and Field Walk – Bells, Bananas, Jalapenos, Allen Gahler, OSU Extension

**October 13:** Soil Health and Water Quality – How Does It Affect Me? A Look at Edge of Field Studies and NCARS Water Samples, Libby Dayton, School of Environmental and Natural Resources

**Please** join us at the North Central Agricultural Research Station, Fremont, OH, the second Thursday beginning April 14 through October 13 for breakfast, industry updates, in-depth tips, tricks, and information from researchers to help make your 2016 growing season a profitable one! Attend when the topic suits you or take advantage of each month's program

## Registration

Free and open to the public

Bring your plant disease and insect samples to the OARDC Lab for identification and same day results, free of charge!

**Free** breakfast begins at 7 A.M. followed by the featured speaker, field walk and networking

## For more information

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OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER  
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# Strawberry Field Night

## At OSU South Centers

Hosted by Brad Bergefurd

Wednesday,  
May 25, 2016  
5:30 — 8:30 P.M.

**Location:** OSU South Centers  
1864 Shyville Rd., Piketon, OH

**Cost:** \$20.00 per person  
(Includes handouts and dinner served from 5:30 to 6:00)

**To Register:**  
You must register  
Contact Charissa Gardner at  
Gardner.1148@osu.edu  
740.289.2071 ext. 132

**DEADLINE to Register:**  
May 23, 2016

**For more information go to**  
<http://go.osu.edu/strawberryfieldnight2016>

 **THE OHIO STATE UNIVERSITY**  
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**Plasticulture and matted row strawberry field research will be showcased**

Topics to be covered will include:

- winter protection techniques
- israeli drip irrigation demonstration and management
- fertigation and nitrogen management
- row cover management
- June bearing, day-neutral, ever-bearing cultivar evaluations
- pest and disease control
- integrated Pest Management (IPM) techniques
- petiole sap analysis demonstration

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## High Tunnel Integrated Pest Management Training

OSU Waterman Agricultural & Natural Resources Farm

Hosted by Brad Bergefurd & OSU EIPM



### June 1, 2016

**Topics include:**

High tunnel basic and advanced IPM techniques & tools, insect management and identification, plant grafting, disease management, anaerobic soil disinfestation for disease control, spotted wing drosophila management

**High Tunnel Tour:**

The tour will consist of OSU research facility tunnel, and various local farm locations.

**Registration  
Deadline**

Thursday, May 26, 2016  
To register email  
Charissa Gardner at  
Gardner.1148@osu.edu

Wittmeyer Conference  
Room  
2490 Carmack Road  
Columbus, Ohio 43221

For the agenda and more  
information go to  
[go.osu.edu/hightunneltraining2016](http://go.osu.edu/hightunneltraining2016)

**Cost: \$35.00 per  
person**

\*the cost includes: breakfast,  
lunch, snacks, educational  
handouts, tours of various  
tunnels, high tunnel manual, &  
flash drive with presentations

Space for participating in this training is very limited.



CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information, <http://go.osu.edu/taede0814>



# SUMMER *& field* tour *day*

June 22, 2016

## REGISTRATION IS NOW OPEN!

### SCHEDULE OF EVENTS

**1:00 PM—5:00 PM**

Tradeshow

**1:00 PM—2:00 PM**

FSMA Update

**2:00 PM—4:00 PM**

Wagon Tours

**2:00 PM**

Practical Food Safety Walk Through

**4:00 PM—7:00 PM**

Food trucks available

**5:00 PM**

OPGMA Business Meeting

**5:15 PM**

Live music on the patio

### FEATURED FOOD TRUCKS

#### The Beautiful Flame

*Known for their*

#### BRICK OVEN PIZZA

#### Harvest at Hillcrest

*Known for their*

#### LAKE ERIE PERCH TACOS APPLE CHUTNEY & CHEDDAR GOURMET HOT DOGS

### FEATURED MUSIC

#### The Smer Brothers Band



Get out of your business for the day to **network with your peers**, take a **tour of Quarry Hill Orchards'** innovative farm, enjoy **one-on-one time** with industry vendors, get the information you need to **stay current on food safety regulations**, and **HAVE SOME FUN**. *Yes, it's okay to have some fun!* You work hard **every day**. The **OPGMA Summer Tour & Field Day** gives you the opportunity to **combine work and play**.

### QUARRY HILL ORCHARDS

8903 Mason Rd, Berlin Heights, OH



Quarry Hill Orchards is a relationship-driven, family-centric, and quality-focused 130-acre fruit tree farm and retail market that specializes in growing, harvesting, and bringing to market boutique apples, peaches, pears, plums, cherries, and nectarines.

In 2005, Quarry Hill Winery was opened, offering a wide variety of award-winning, estate-grown and bottled wines. The vineyard is planted on the highest point of the farm, so it has added protection from spring frosts and allows longer ripening time in the fall. The rolling land and sandy loam soil provide excellent drainage.

### REGISTRATION INFO

#### OPGMA Members

\$25 1st company attendee  
\$10 each additional attendee

#### Non-Members

\$30 1st company attendee  
\$10 each additional attendee

**No refunds after June 17**

Register online at: [www.opgma.org/summer-tour](http://www.opgma.org/summer-tour)

Ohio Producer Growers & Marketers Association | 17 S. High St, Suite 200, Columbus, OH 43215  
Phone: 614.228.4739 | Fax: 614.221.1989 | [opgma@assnoffices.com](mailto:opgma@assnoffices.com) | [www.opgma.org](http://www.opgma.org)



## VegNet Newsletter

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

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**Disclaimer:** Information in this newsletter presented above and where trade names are used, they are supplied with the understanding that no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions. Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA. Keith L. Smith, Associate Vice President for Agricultural Administration; Associate Dean, College of Food, Agricultural, and Environmental Sciences; Director, Ohio State University Extension and Gist Chair in Extension Education and Leadership. TDD No. 800-589-8292 (Ohio only) or 614-292-1868.

### Submit Articles:

To submit an article to the VegNet newsletter please send the article and any photos to Charissa Gardner at [gardner.1148@osu.edu](mailto:gardner.1148@osu.edu). For questions regarding the newsletter contact **Brad Bergefurd** at [bergefurd.1@osu.edu](mailto:bergefurd.1@osu.edu) or call 740.289.2071 ext.132

## About the editor

### Brad Bergefurd

Bergefurd is an Extension Educator, Agriculture and Horticulture Specialist with Ohio State University Extension, with statewide responsibilities for outreach and research to the agriculture and commercial fruit and vegetable industries Brad has offices at the OSU Piketon Research & Extension Center in Piketon and at OSU Extension Scioto County in Portsmouth.



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