

VegNet

The Vegetable and Fruit Crops Teams Newsletter

<http://vegnet.osu.edu>

Lead Editor and Contributing Author: Brad Bergefurd
Graphic Designer & Editor: Abigail Fuhrmann

In this issue:

Vol. 23 Number 10, June 21, 2016

Squash Vine Borer Now Active	1-2
Ripening Fruit Invites SWD	3
Managing Timber Rot in High Tunnels and Greenhouses	4
North Central Report	5
Southern Ohio Vegetable and Fruit Report	6-7
Wayne County IPM Report	8
Southern Ohio Vegetable and Fruit Update — IPM Report	8
Typical Yield Patterns of Grafted and Ungrafted Tomato, Watermelon, and Melon Plants	9
OSU Vegetable Workshop Series Offered for Growers	10
Ohio Superberry Field Night	11
OPGMA Summer Tour and Field Day	12
Direct Marketing Webinars	13
Our Sponsors	14

Squash Vine Borer Now Active

*From Mike McFarland, and Celeste Welty, Extension
Entomologist, The Ohio State University*

We detected the first adult squash vine borers in a pheromone trap on June 8th in Columbus. Growers who usually have problems with this pest should be prepared to manage it over the next 4 to 6 weeks. Squash vine borer is a major pest of squash and pumpkins and can lead to 100% crop loss in gardens and 25% crop loss in commercial fields.

Signs and Symptoms: Squash vine borer causes plants to wilt and sometimes to die. Damage caused by squash vine borer can be mistaken for bacterial wilt because it can cause the squash leaves to wilt without warning. **(Continued on next page)**



Picture:
Frass caused by squash
vine borer larvae on a
zucchini plant.

Squash Vine Borer Now Active Continued

However, squash vine borer damage will have a hole in the stem often surrounded by sawdust-like material called frass. The squash vine borer larva eating its way into the stem of the plant makes frass (Figure on the right). Holes in the stem are sometimes difficult to find once plants are large.

Life cycle: Squash vine borer emerges from its pupa as an adult in early- to mid-June with its peak emergence in late June to early July. The adults lay their eggs at the base of squash and cucurbit stems, with each female capable of laying 150-200 eggs per season. It takes 7-11 days for the eggs to hatch and the larvae then burrow into the stem of the plant. The larval stage is what causes the damage to the squash and is the most important to manage. Squash vine borer larva remains in the plant for 4-6 weeks but can move to a different squash plant if its original host dies. In Ohio, there is usually one generation per year, but in warm years there is sometimes a small second generation in August and September.

Appearance: The squash vine borer adult is an orange and black clearwing moth that is between 1-1.5 inches in length and is active during the day (Figure A). Adult squash vine borer look like a wasp when flying and can sometimes be seen resting on the foliage of the squash leaves or a nearby plant. The larva is a fat white grub-like caterpillar with a black head and a white body that can be up to an inch in length, depending upon its age (Figure B).



Photos:

- A. A squash vine borer adult resting on a leaf.
- B. A squash vine borer larva that has bored into a zucchini stem.

Management: One of the best ways to manage squash vine borer is to plant a variety of squash that they are not interested in. For example butternut squash, which has thin stems, tends to have low infestation rates while zucchini, Hubbard squash, and pumpkins tend to be very attractive to squash vine borer. Row covers can be used to block egg-laying in late plantings but covers need to be removed as soon as female flowers appear so that pollination can occur. Insecticides can be used to control squash vine borer but the timing of the sprays is critical. Having a pheromone trap will allow you to know when the squash vine borer is emerging. One week after squash vine borer moths are detected, you will want to spray the base of the stem where the eggs will be hatching. The idea of spraying is that you want to kill the larvae before they are able to get into the stem where insecticides will no longer be effective. Insecticides that generally are most effective for squash vine borer are pyrethroids such as permethrin (Pounce), zeta-cypermethrin (Mustang Maxx), esfenvalerate (Asana), lambda-cyhalothrin (Warrior), bifenthrin (Brigade), and zeta-cypermethrin + bifenthrin (Hero). Carbaryl (Sevin) has fair efficacy. Products that do not list squash vine borer as a target pest on the label but that are known to provide some control are acetamiprid (Assail), spinosad (Entrust), and pyrethrins + piperonyl butoxide (EverGreen). Traditional recommendations are to spray once per week as long as adult moths are active, which can be for 6 weeks; pyrethroids have long residual so they are likely to be effective on a 14-day interval, while spinosad or pyrethrins have a short residual and need the 7-day interval.

Ripening Fruit Invites SWD

From Jim Jasinski, IPM Program; Celeste Welty, Dept. of Entomology

SWD Detected: Clark and Clinton Counties

Two female Spotted Wing Drosophila adults were positively identified in Clark county and one female SWD was captured in Clinton County on June 15th. These are the first detections reported in the state, which fits our typical pattern of first detection in mid June. Growers with ripening and ripe fruit should be actively monitoring for SWD adults, and take appropriate management if detected.

It's that time of year again to be on the lookout for spotted wing Drosophila (SWD) in raspberry, blackberry, and blueberry patches, along with peach orchards and vineyards. Most June-bearing strawberries are finishing up and therefore at very low risk of infestation but day neutral strawberries may be at risk for infestation. Tomato growers generally aren't at risk unless the fruit has cracked, allowing all kinds of insects access to feed and lay eggs.

Recall that SWD is an invasive pest first detected in a single county in Ohio in 2011. It has since been detected in almost every county we set up a trap, and while we have heard of pockets where growers have not seen SWD, we consider all of Ohio to be at risk for infestation. In fact, this pest has spread across the entire country, so be aware if buying fruit from other states. What separates this vinegar fly from other vinegar flies commonly found in Ohio is the ability to attack **ripening** and **ripe** fruit (note list above), where as other Drosophila need to wait until the fruit is past ripe or spoiling to attack.

Extension educators covering 21 counties are currently trapping for SWD adults using a combination of Scentry lures or Apple Cider Vinegar baited traps. So far no SWD have been reported but a few false positives have been submitted. In past years, we have found the first flies around mid-June, so we expect to find positive detections either this week or next. To keep up on the trap reports, check this website frequently: <https://u.osu.edu/pestmanagement/trap-reports/>

Why is trapping important for me to do on my farm? The threshold to begin management is a single SWD adult. If a grower has ripening (blushing) fruit or ripe fruit, and has positively detected at least one SWD adult, OSU's recommendation is to begin treating on a 5-7 day schedule until harvest is complete in that field. More details about insecticide options for the various crops and some tips on the biology can be found here: <https://u.osu.edu/pestmanagement/info/swd/>

Managing Timber Rot in High Tunnels and Greenhouses

From Sally Miller, Ohio State University Extension Specialist—Vegetable Disease Management, Department of Plant Pathology

The “protected culture” of high tunnel and greenhouse tomato systems may result in lower incidence of diseases spread by rainfall such as Septoria leaf spot and bacterial spot and speck. However, some diseases that are uncommon in open fields occur often in high tunnels and greenhouses. White mold (timber rot) is among the most important of these diseases found in protected culture. Timber rot can be managed primarily by employing appropriate cultural tactics. More information can be found on Vegetable Disease Facts (<http://u.osu.edu/vegetablediseasefacts/tomato-diseases/high-tunnel-diseases/sclerotinia-white-mold/>).

- **Prevent Excess Moisture** – If soils remain warm and continuous wet periods are avoided, sclerotia (overwintering structures) of the pathogen will be unable to germinate. Keep plant density low and prune to increase air movement. Reduce foliage density as much as possible in the lower canopy to keep the zone between the soil and foliage as wide as possible.
- **Chemical Treatments** – There are no fungicides labeled for use against white mold/timber rot in greenhouse or high tunnel tomatoes.
- **Biological Control** – Actinovate AG at 3-12 oz. per acre is labeled for greenhouse/high tunnel tomatoes to suppress white mold. It should be used with a spreader/sticker. However, we have no data on efficacy of this product against white mold. Contans is also biological control product, but it has shown good results in a number of tests. Contans should be applied to soil before or at transplanting, and again after the tomato crop to reduce the viability and number of sclerotia.
- **Sanitation** – Clean tools and machinery should be used in the high tunnels and greenhouses to prevent spread of sclerotia and spores. Remove fallen flower petals or dying plant material so that the pathogen cannot survive in the plant debris. Carefully dig up diseased plants and remove soil in a 4-6 inch radius around the base of the stem to remove any sclerotia that may have fallen from the plant to the soil.



Pictures:

- White mold/timber rot on high-tunnel tomato. Irregular black structures on the soil near the stem are sclerotia of the pathogen.
- Tomato plant wilting after Sclerotinia infection of the basal stem.

North Central Report

From Tim Malinich, Agriculture and Natural Resources, Horticulture Educator, The Ohio State University Extension

Crop Reports

Trailing blackberries are now in full bloom, erect forms finished bloom, primocane varieties producing new canes.

Very few reports of fireblight in apples or pears this year. Coddling moth flights have begun. Some wooly apple aphid activity has been noticed.

Peach growers have indicated they have a light crop; buds were fine coming out of winter but the late frost damaged the flowers.

Cicada Activity

The big pest as you head south from Lake Erie is Cicadas. They are still singing and flying through the area with a fairly distinct geographic region that roughly matches the latest brood map. A blueberry grower in central Lorain County was hard hit (estimated over 25% crop loss), while a few miles north of their location there is no cicada activity.

Even within the brood area, location plays a significant role in cicada damage.

In Ashland County, a small orchard isolated from the nearby woods by farm fields has very few cicadas while the lower wood lot one thousand feet away is covered in cicadas.

Apple growers in the brood area are reporting significant cicada activity and spraying to control the adults. The egg laying slits and subsequent flagging are becoming apparent now. There is even some cicada damage in elderberries.



Photos:

- A. Cicada egg laying—note the black ovipositor entering the stem.
- B. Blueberry stems $\frac{1}{4}$ - $\frac{1}{2}$ " thick are being used for egg laying.
- C. In this dissected stem, you can see the long oval white eggs inserted into the cavity.

(All Photos taken by Tim Malinich)

Southern Ohio Vegetable and Fruit Report June 16th

From Brad Bergefurd, OSU Extension Educator and Horticulture Specialist, Ohio State University Extension Scioto County & OSU South Centers

Field work remains in full force with farms getting caught up and harvest beginning to be the main farm activity of importance. In some areas, farmers were driven out of fields on June 15 with local thunderstorms with areas reporting anywhere from .10 to .75 inches of badly needed rainfall. Sweet corn is in full tassel and silk, with harvest estimated to begin this Fathers Day weekend. Field work has included plowing, working ground, spraying, bed shaping, laying plastic, staking and tying tomatoes, transplanting peppers, tomatoes, cabbage, melons and watermelons, transplanting and direct-seeding pumpkins, sweet corn, cucumbers, beans, summer squash and winter squash.

Apples and peach crops are looking very good and continue to be sprayed regularly. Harvest activities include the last of the asparagus harvest, the last of the plasticulture and matted-row strawberry harvest, high-tunnel tomato and cucumber harvest, the last of the pea harvest, zucchini and summer squash, lettuce and spinach harvest. Spraying fungicides on tree fruit, hops, strawberries, brambles, blueberries and grapes, and spraying pre-emerge and post-emerge herbicides. Hop plantings are being fertigated weekly with Nitrogen and injections of systemic fungicides for Downy Mildew continue to be applied. Leafhoppers and spider mites are also increasing in hop plantings with many farms reaching threshold levels and requiring a tight insecticide and miticide program. New plantings of hops continue to be hand-planted and new high trellis hop systems are being installed. Cucumber beetles continue to reach threshold levels in melons, cucumbers and squash because at-planting insecticide treatments are beginning to lose their effectiveness. Flea beetles continue to cause damage to eggplant.

Damage is reported on melons where herbicide was applied to the plastic and water from the transplanter washed the herbicide into the planting hole, causing stunting and bleaching of transplants. This field had to be replanted and the grower lost about 3 weeks of growth which will delay his early market harvest. Caution must be taken when using herbicides near plastic mulch, if it is planted before a rain can wash off the residue, crop damage is possible. Always follow all pesticide labels and directions. **(Images continue on next page)**



Pictures:

Leafhoppers and spider mite threshold levels are increasing in hop plantings
(photos by Brad Bergefurd and contributed)

Southern Ohio Vegetable and Fruit Report June 16th Continued



Pictures:

- A. Command herbicide injury on cantaloupe where herbicide contacted poly before planting and residue washed into the planting hole. (photos by Brad Bergefurd)
- B. Timber Rot disease is increasing in high tunnel tomato crops (photo by Zach Charville)

Wayne County IPM Report: June 14th

From Rory Lewandowski, Extension Educator, Wayne County

It continues to be dry to this point in Wayne County. Growers this past week were irrigating vegetable crops and/or getting irrigation systems set up and in place to water. Possibly one benefit of the dry weather is that scouts have been reporting few diseases on plants and the few diseases that have been seen are in high tunnels. This past week, scouts reported wind damage and some wind whipping on tomatoes, zucchini, and peppers. Ground hog damage in some fields is also being noted by scouts.

Insect pressure and damage is variable. Scouts are reporting thrips in onions ranging from very low levels to between 10 to 30 thrips/plant on the high end. Imported cabbage worm eggs and some larvae were seen on some cabbage and broccoli fields this past week, but at levels below treatment threshold. Most of the zucchini and summer squash are doing well and only the occasional cucumber beetle has been found. On the other hand, cucumber beetles have been found in high numbers in melon plantings and in cucumbers, with scouts recommending treatment to growers. Colorado potato beetle has been found by scouts in numbers exceeding threshold treatment levels in eggplant and potatoes this past week. Flea beetles have also been found above threshold levels in some potato fields. European corn borer (ECB) traps were set in some sweet corn fields the week of June 6 and moth counts in those traps ranged from 0 to 11 per trap this week. Scouts found damage by ECB larvae in sweet corn fields this week. Damage ranged from 0 to 33%, which triggered rescue treatment recommendations in some grower fields. Some sweet corn fields are at the silk and tassel stage of development, while other fields are just emerging as a result of staggered plantings.

Southern Ohio Vegetable and Fruit Update June 16th — IPM Report

From Zach Charville, OSU Extension IPM Crop Scout Intern

Field work continues in Southern Ohio this week as farmers prepare for sweet corn harvest beginning this weekend. Strawberry and asparagus harvest has mostly come to an end, as tomato, zucchini, greens, squash, and cucumber harvest continues. Pesticide treatment of cucumbers and melons continues to combat cucumber beetles and aphids. Flea beetles have been seen on eggplants, and are being treated with insecticides. Bacterial leaf spot has been seen on some tomato plants. Applying oxidate, then an application of fungicide with added copper can be used to combat the disease. On apple and peach trees, damage from the 17-year cicadas laying their eggs can be seen, as well as some fire blight. Fungicide treatments are continuing to be applied to these crops.

Typical Yield Patterns of Grafted and Ungrafted Tomato, Watermelon, and Melon Plants

From Matt Kleinhenz, Department of Horticulture and Crop Sciences, The Ohio State University

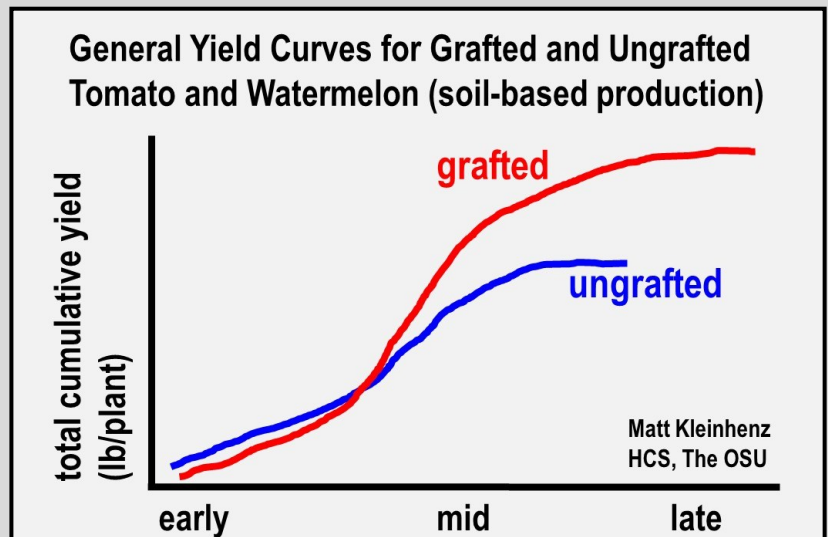
Evidence that grafted plants are typically more productive than ungrafted ones is accumulating. University, USDA, and grower tests under different conditions have shown that the yield potential of grafted tomato, watermelon, and melon can be 10 to 50% or even greater than the yield potential of their ungrafted counterparts (i.e., plants of the same scion variety).

Certain conditions bring out the yield potential of grafted plants most consistently. These conditions include the presence of certain soilborne disease or abiotic stress (e.g., drought, fertility, salinity). Certain diseases may make growing some varieties impossible unless they are grafted to resistant rootstocks. Continuing to pick as late into the season as circumstances allow also helps maximize the yield potential of grafted plants and, therefore, the return on investment in them.

In fact, many farmers and research-Extension people familiar with grafted plants have seen that they usually have a different total seasonal yield profile than ungrafted plants. Figure 1 displays typical yield profiles of grafted and ungrafted tomato and watermelon plants. These profiles (Figure 1) agree with the experience of many researchers and farmers in the U.S.. However, as expected, outcomes from producing specific rootstock-scion combinations vary farm to farm, situation to situation. In side-by-side tests, the major trend is that ungrafted plants out-produce grafted ones through the earliest pickings. However, grafted plants often begin to out-produce ungrafted ones by mid-season pickings, with the trend continuing and the difference growing. It has also been possible to harvest from grafted plants later, after ungrafted plants have quit.

Grafted melon (cantaloupe) plants, on the other hand, have shown the ability to out-produce ungrafted plants from the beginning. Some also report that grafted watermelon plants may hold fruit longer on the vine, easing harvest schedules. Grafted plants can be powerful production tools but getting the most from them takes effort. First, varieties need to be chosen carefully, with purpose, and using research-based information. Second, plantings need to be managed so that the genetic potential of the rootstock and scion can work to the grower's advantage. Part of that management may include extending harvests. Future articles will focus on changes in nutrients, irrigation, and other practices.

Contact Matt Kleinhenz (ph. 330-263-3810; kleinhenz.1@osu.edu) for more information. Also, see resources at <http://www.vegetablegrafting.org/> for additional information.



OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
OHIO STATE UNIVERSITY EXTENSION

2016 VEGETABLE WORKSHOP SERIES



2nd 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

Matt Hofelich

419-332-5142

hofelich.4@osu.edu

Allen Gahler

419-334-6340

gahler.2@osu.edu



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

oardc.osu.edu | extension.osu.edu

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information: go.osu.edu/cfaesdiversity.

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
OHIO STATE UNIVERSITY EXTENSION

Ohio Superberry Field Night

at Ohio State University South Centers

Thursday,
July 7, 2016
6:00 p.m. — 9:00 p.m.

*Hosted by Dr. Gary Gao,
Dave Scurlock, & Ryan
Slaughter*

Location: OSU South Centers
1864 Shyville Rd., Piketon, OH
Large Auditorium, Research
Building

Cost: \$15.00*
**includes a light dinner*

To Register:
Contact Charissa Gardner
gardner.1148@osu.edu or at
740.289.2071 ext. 132

DEADLINE to Register:
Tuesday, July 5, 2016



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES



Learn the basics on these topics:

- ◆ Blueberry Cultivars and Production Techniques
- ◆ Summer Vineyard Management Practices
- ◆ Blackberry Production Systems
- ◆ Introduction to Elderberry, Aronia, and Goji Berry Production
- ◆ Container Fruit Production
- ◆ Chemigation for Pest Management
- ◆ Field tour
- ◆ And more!



CFAES provides research and related educational programs to clientele on a nondiscriminatory basis.



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 Semer 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

**OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
OHIO STATE UNIVERSITY EXTENSION**

Ohio State University Direct Marketing Food & Agriculture

2016 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.



2016 Direct Marketing Webinar Series All webinars begin at 12 noon

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

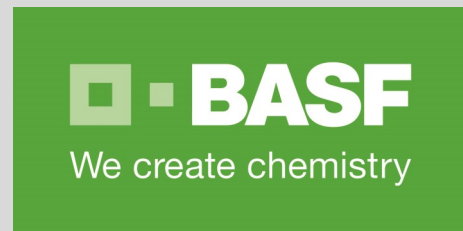
For recordings of all webinars go to go.osu.edu/DirectMarketingWebinars



THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

<http://directmarketing.osu.edu>

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



VegNet Newsletter

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Editor, **Brad Bergefurd**
Bergefurd.1@osu.edu
740.289.2071 Ext. 136

Co-Graphic Designer and Editor, **Charissa Gardner**
Gardner.1148@osu.edu
740.289.2071 Ext. 132

Co- Graphic Designer and Editor, **Abigail Fuhrmann**
Fuhrmann.13@osu.edu
OSU Student

<http://vegnet.osu.edu/newsletter>

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 **Brad Bergefurd** at bergefurd.1@osu.edu or for questions regarding the newsletter 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.



Brad Bergefurd, MS

Extension Educator, Agriculture and Horticulture Specialist with Ohio State University Extension