The Ohio State University Extension

VegNet

The Vegetable and Fruit Crops Team Newsletter

http://vegnet.osu.edu

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Graphic Designer & Editor: Charissa Gardner

Vol. 23 Number 6, May 24, 2016

In this issue:

Wayne County IPM Report: May 18

From Rory Lewandowski, Extension Educator, Wayne County

Although the weather station at Wooster recorded 32□F as the low on Monday morning May 16, several growers reported temperatures in the 28 to 29-degree range. As a result, scouts noted some frost damage when out scouting this week. Frost damage was noted on sweet corn, strawberries, and grapes. The corn is young enough, in growth stages VE to V5 that the growing point is still protected and some of the larger corn is still under plastic. Damage to strawberries appeared to be minimal, mainly to berries that had row cover blown off. Frost damage on grapes was also minimal and appeared to be confined to some of the youngest tissue.

Cover crop: legume/grass mixture scheduled to be terminated ahead of a sweet corn planting.

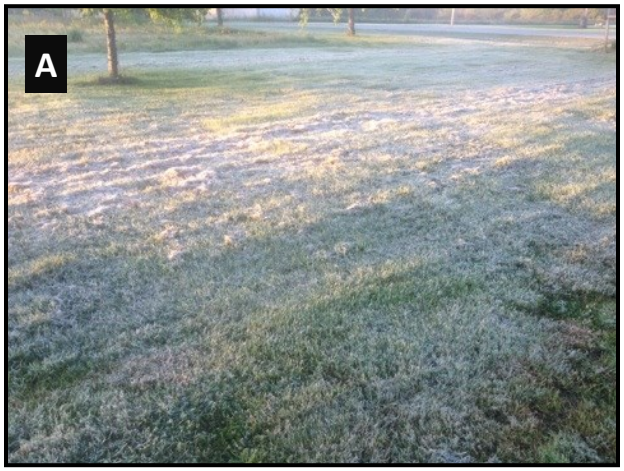
Photo by Chris Smedley, Wayne County IPM scout

Cole crops are generally looking good. In some plantings scouts noted flea beetles above threshold. Slug damage is noted but light. Peas, onions and garlic all look good. Thrips continue at very light levels in onions and garlic, well below threshold levels. Warm season crops under row covers, such as zucchini, summer squash and green snap beans look okay, but are not growing very fast. They are just waiting for warmer temperatures. Looking ahead to warmer temperatures, some growers are preparing to terminate cover crops (see photo) to plant sweet corn. Some sunshine and warmer temperatures will improve crop growth and growers' spirits!

Southern Ohio Vegetable and Fruit Update May 19th

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

The big concern this week was the freeze and heavy frost events the mornings of Sunday, May 15 and Monday, May 16. Growers reported 26□F in Chillicothe and 31□F in Stoutsville (Fairfield County). Needless to say, demand for spunbonded row covers was very high last weekend and any row covers or low tunnels that were available from local suppliers or that had been tucked away in barns and hay lofts were pulled out to protect strawberries in bloom, recently set tomatoes, peppers, cantaloupe, watermelon, summer squash and cucumbers that were at first true leaf, and emerged green beans. Overall, where protective measures were taken, damage was minimal, however in areas that experienced temperatures in the 20s, heavy freeze damage occurred to unprotected plantings. In Geauga county, strawberry farms were frost protecting using overhead irrigation in heavy snow squall conditions.



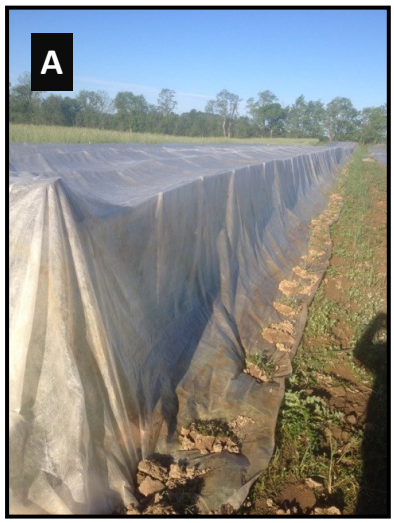
A. Heavy frost and freeze events May 15 and 16 caused damage to unprotected vegetable crops.
Photos by Brad Bergefurd

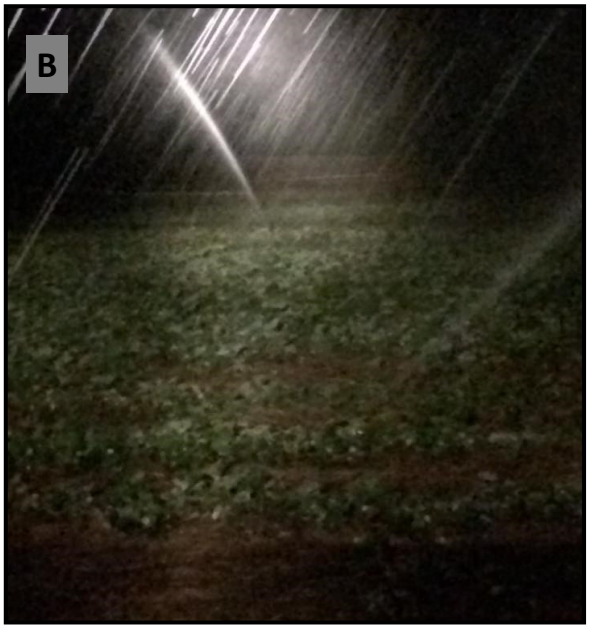
Rain, wet and muddy field conditions were the norm again for most of the region, however isolated areas have been dodging the heavy rains and growers have been sneaking into fields to plant and perform field operations. Overall, very little to no field work is getting done except for daily asparagus harvest, plasticulture strawberry harvest, high tunnel tomato harvest, spraying fungicides on tree fruit, strawberries, brambles, blueberries and grapes and spraying herbicides. Some no-till pumpkins were planted in the Circleville area on Tuesday evening. Most areas reported some rainfall every day the past week total amounts ranging from .75 to over 4 inches.

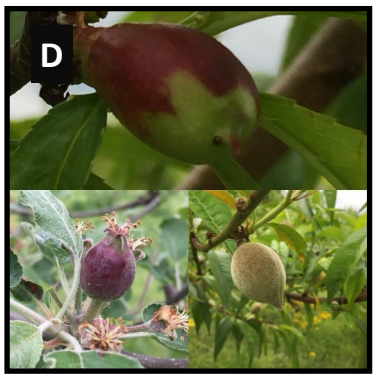
Apples and peaches continue to be pruned. Hop plantings are being fertigated, strings are being dropped and new bines are being trained. New plantings of hops are being hand-planted on beds made before the rains began and new high-trellis hop systems are being installed. Strawberry harvest is in full swing in plasticulture plantings with very high quality, yield, size and market demand being reported. 17-year periodical Cicada damage is being reported on blueberries and brambles in Ross County (article continued on the next page).

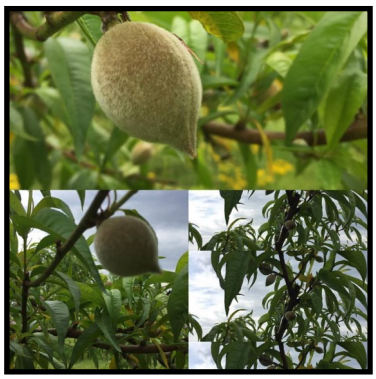
Southern Ohio Vegetable and Fruit Update Continued...

Bird netting systems are being installed on blueberry fields with harvest predicted to begin soon. Matted-row strawberries are at full bloom and harvest should begin next week. Fungicide applications are being made through aerial application on malting barley. Peas and tomatoes are being staked and strings are being applied. Floating row covers and hoops remain in place on field pepper and tomato plantings with cool nighttime temperatures.









B. Area farms were busy protecting vegetable crops with row covers and low-tunnels last weekend May 14 through May 16. **Photos by Brad Bergefurd**
C. In Geauga County, overhead frost protection was being applied to strawberries in bloom on May 15th during a heavy snow squall. **Photo by Dave Patterson**
D. Peach and apple crops are looking good in most areas. **Photos by Brian Helser**

Insect Observations

From Celeste Welty, Extension Entomologist & Associate Professor of Entomology The Ohio State University

Codling moth is now active in apples. In our apple orchard in Columbus, the date of sustained catch of codling moth adults in pheromone traps was Saturday, 7 May. We are now tracking degree-day accumulations since that biofix date, although very few have accumulated due to the very cool weather. The target timing for most insecticides is 250 degree-days (base 50F) after biofix. In our apple and peach blocks in Columbus, the Oriental fruit moth has been active since late March when pheromone traps were set up, but its activity is now tapering off as we enter the period between generations. Trap reports for fruit pests in Columbus and for Rory Lewandowski's sites in northeastern Ohio can be viewed online (https://docs.google.com/spreadsheets/d/137jaQtx_FdRfH8IZLLQTOsaZ_MKfEh1IYxG682kbmlw/edit?ts=5730f660#gid=0), note there is a tab at the bottom of the page for each species.
In vegetable crops, we are keeping a look out for early season pests. Leafminers are active in spinach, swiss chard, and beets; the species are spinach leafminer and beet leafminer, which are similar in biology but difficult to tell apart. Three moth species are active: moths of black cutworm, variegated cutworm, and true armyworm have been caught in pheromone traps since traps were deployed in early April. These pests can attack seedling vegetable crops, so crops such as sweet corn should be scouted for any sign of cut plants or nibbling on leaves. Cutworms hide in the soil at the base of plants. Trap reports for vegetable pests in Columbus and Celeryville are now posted online (https://docs.google.com/spreadsheets/d/1d-8WwH6ommLvJaZ75TrZCv1sNHhpAAYhmxtW6cUVLmg/edit?pref=2&pli=1#gid=1042254716), and will be joined by reports from various other locations as the season progresses. Note there is a tab at the bottom of the page for each species.

New Supplemental Label of Sandea for Cucumbers

From Chengsong Hu, Research Associate and Doug Doohan, Professor, Department of Horticulture and Crop Science, OARDC, The Ohio State University

A supplemental label for Sandea has been approved recently by the U.S. EPA, allowing a preharvest interval (PHI) of 14 days on cucumbers. Sandea is a selective herbicide with both preemergence and postemergence effect. It translocates within the plants after it is absorbed through root, shoot and foliage. Sandea controls certain broadleaf weeds, and controls nutsedge very well when applied postemergence. The effect on nutsedge can be maximized when two sequential applications (at least 21 days apart) are made.
Previously, the PHI of Sandea was 30 days. This limited its effectiveness against broadleaf weeds and nutsedges. For most cucumber varieties, days to maturity from transplanting is 40-50 days. With a 30-day PHI, Sandea can only be applied 10-20 days after transplanting, when plants are small and few weeds have emerged. A reduced PHI allows nutsedge to grow to the 3-5 leaf stage at which nutsedge is most sensitive.
For non-mulch direct-seeded cucumbers, Sandea can be applied after planting but before cucumber plants emerge, or after the crop has reached at least the 3-5 leaf stage but before flowering. For transplanted or plastic-mulched cucumbers, a 7-day gap must be left between a pre-plant application and planting/transplanting to avoid crop damage. Another application of Sandea in transplanted or mulched cucumbers can be made when cucumbers have been planted for no less than 14 days and should be in the 3-5 leaf stage.

(See Supplemental Labeling for Cucumbers on the next page)

Gowan
The Go To Company

GROUP 2 HERBICIDE

P.O. Box 5569 ▲ Yuma, AZ 85366-5569 ▲ Phone (928) 783-8844 ▲ FAX (928) 343-0255

Supplemental Labeling for Cucumbers

Sandea
Herbicide

SANDEA® is a selective herbicide for control of listed broadleaf weeds and nutsedge

ACTIVE INGREDIENT:	% BY WT.
Halosulfuron-methyl, methyl 3-chloro-5-(4,6-dimethoxypyrimidin-2-ylcarbamoylsulfamoyl) -1-methylpyrazole-4-carboxylate	75.0%
OTHER INGREDIENTS	25.0%
TOTAL	100.0%

EPA Reg. No. 81880-18-10163
This label expires 05-31-2018 and must not be used or distributed after that date.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Read the label affixed to the container for Sandea Herbicide before applying.

- The labeling must be in the possession of the user at the time of pesticide application.
- It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
- Use of Sandea herbicide according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for Sandea Herbicide.

CROP	OZ/ACRE	DIRECTIONS FOR USE
CUCUMBERS (14) (including *pickles*) CANTALOUPES (57), HONEYDEWS (57), AND CRENSHAW MELONS (57)	1/2 - 1	Apply uniformly with ground equipment in a minimum of 15 gal of water per acre. **Direct-seeded: Bare ground (no mulch)** • **Preemergence** - Apply SANDEA after planting, but prior to soil cracking. Use the lower rate on lighter textured soils with low organic matter. • **Postemergence** - Apply SANDEA after the crop has reached at least 3 to 5 true leaves but before first female flowers appear. SANDEA can be applied as an over-the-top application, a directed spray application, or with crop shields to minimize contact of the herbicide with the crop. **Direct-seeded: Plastic mulch** • **Pre-seeding** - Apply SANDEA following final bed shaping and just prior to the installation of the plastic mulch. Crop may be seeded into this treated area no sooner than 7 days after application and the installation of the plastic mulch unless local conditions demonstrate safety at an earlier interval. Use the lower rate on lighter textured soils with low organic matter. • **Postemergence** - Apply SANDEA after the crop has at least 3 to 5 true leaves but before first female flowers appear. SANDEA can be applied as an over-the-top application, a directed spray application, or with crop shields to minimize contact of the herbicide with the crop. Additional phytotoxicity may occur when applications are made over plastic due to concentration of product in the planting hole. Note: Over-the-top applications on plastic are not allowed in Northeastern and Midwestern states. **Transplanted: Bare ground (no mulch)** • **Pre-transplant** - Apply SANDEA as a pre-transplant application. Crop may be transplanted into this treated area no sooner than 7 days after application unless local conditions demonstrate safety at an earlier interval. Use the lower rate on lighter textured soils with low organic matter. Care should be taken to limit movement of SANDEA-treated surface soil during the transplanting process since if treated soils is moved into the transplant hole injury can occur. • **Post-transplant** - Apply SANDEA to transplants that are established and actively growing. Applications should not be made until plants are actively growing and in the 3 to 5 true leaf stage or no sooner than 14 days after transplanting unless local conditions demonstrate safety at an earlier interval, but before first female flowers appear. SANDEA may be applied as an over-the-top application, a directed spray application, or with crop shields to minimize contact of the herbicide with the crop. **Transplanted: Plastic mulch** • **Pre-transplant** - Apply SANDEA following final bed shaping and just prior to the installation of the plastic mulch. Crop may be transplanted into this treated area no sooner than 7 days after the application and the installation of the plastic mulch unless local conditions demonstrate safety at an earlier interval. Use the lower rate on lighter textured soils with low organic matter. Care should be taken to limit movement of SANDEA-treated surface soil during the transplanting process since if treated soils is moved into the transplant hole injury can occur. • **Post-transplant** - Apply SANDEA to transplants that are established, actively growing and in the 3 to 5 true leaf stage or no sooner than 14 days after transplanting unless local conditions demonstrate safety at an earlier interval, but before first female flowers appear. Apply SANDEA as an over-the-top application, a directed spray application, or with crop shields to minimize contact of the herbicide with the crop. Additional phytotoxicity can occur when applications are made over plastic due to concentration of product in the transplant hole. Note: Over-the-top applications on plastic are not allowed in Northeastern and Midwestern states.

CROP	OZ/ACRE	DIRECTIONS FOR USE
		Direct-seeded and Transplant: • **Row Middle/Furrow Applications** - Apply SANDEA between rows of direct-seeded or transplanted crop. Avoid contact of the herbicide with the planted crop. If plastic is used on the planted row, adjust equipment to keep the application off the plastic. Reduce rate and spray volume in proportion to area actually sprayed.
		Split Applications for Nutsedge: • **Preemergence followed by postemergence for nutsedge control** To maximize control of nutsedge, it may be necessary to use a postemergence application to those areas where the nutsedge has emerged later following a preemergence application. For these situations, use a spot treatment method treating only those areas of emerged nutsedge. Application rate should not exceed 1.0 oz product per treated acre in these areas. Use a water volume that will allow for good coverage of the plants. Avoid contact of the herbicide with the planted crop. • **Postemergence followed by postemergence for nutsedge control** To maximize control of nutsedge, it may be necessary to use a second postemergence spot application to those areas where the nutsedge has emerged or re-grown. For these situations, use a spot treatment method treating only those areas of emerged nutsedge. Allow a minimum of 21 days between applications. Application rate should not exceed 1.0 oz product per treated acre in these areas. Use a water volume that will allow for good coverage of the plants. Avoid contact of the herbicide with the planted crop.
		PRECAUTIONS: • Runners that come in contact with the plastic can pick up residual SANDEA and may exhibit a visual crop response. • Consult "Use Precautions" and "For Optimum Results" for important usage information. **RESTRICTIONS:** • Do not apply more than 2 applications or 2 oz/A of product by weight (0.094 lb a.i./acre) per 12 month period. (includes applications to the crop and to row middle/furrows)

Supplemental label Cucumbers (EPA approved 5-11-16)

Gowan
The Go To Company

EPA Reg. No. 81880-18-10163
EPA Est. No.

Produced For:
Canyon Group LLC
C/O Gowan Company
PO Box 5569
Yuma, AZ 85366-5569

National Academies of Science Report on GMOs

From Jim Jasinski, Associate Professor, IPM Program Coordinator, The Ohio State University

For many years, growers, consumers, and environmentalists have argued over the labeling, safety and health concerns of eating genetically engineered (GE) and genetically modified organisms (GMO), such as some varieties of corn, soybean, cotton, canola, and other crops.

On May 17th, the National Academies of Science completed a long awaited report on the impact of GMO's entitled, "Genetically Engineered Crops: Experiences and Prospects." The report was Chaired by Dr. Fred Gould at North Carolina State University along with 19 other members representing universities, medical schools, and other institutions. Both an introduction video to describe the methodology of the report and the 407 page report (pdf) can be found at http://nas-sites.org/ge-crops/. The report includes a summary plus nine other chapters ranging from genetically engineered crops to regulation of current and future engineered crops.

If the above link is not active, search online for "national academy gmo report" and it should be at the top of the list.

Some brief findings of the committee include:

-"…comparisons between currently commercialized GE and non-GE foods…the committee concluded that no differences have been found that implicate a higher risk to human health safety from these GE foods than from their non-GE counterparts…the committee states this finding very carefully…"

-"…no conclusive evidence of cause-and-effect relationships between GE crops and environmental problems... illustrated by the case of the decline in overwintering monarch butterfly populations…Monarch dynamics reported as of March 2016 have not shown that suppression of milkweed by glyphosate is the cause of monarch decline…there is as yet no consensus among researchers that increased glyphosate use is not at all associated with decreased monarch populations."

-"There is disagreement among researchers about how much GE traits can increase yields compared with conventional breeding… no significant change in the rate at which crop yields increase could be discerned from the data. Although the sum of experimental evidence indicates that GE traits are contributing to actual yield increases, there is no evidence from USDA data that they have substantially increased the rate at which U.S. agriculture is increasing yields."

-"Herbicide-resistance traits allow a crop to survive the application of a herbicide that would otherwise kill it…with regard to changes in the amount of herbicide used since the commercialization of GE crops, the committee found that there were decreases in total kilograms of herbicide applied per hectare of crop per year when herbicide-resistant crops were first adopted, but the decreases have not generally been sustained…"

OHIO AGRICUTURAL RESEARCH AND DEVELOPMENT CENTER
OHIO STATE UNIVERSITY EXTENSION

Hops
First Friday Tour 2016

Date:

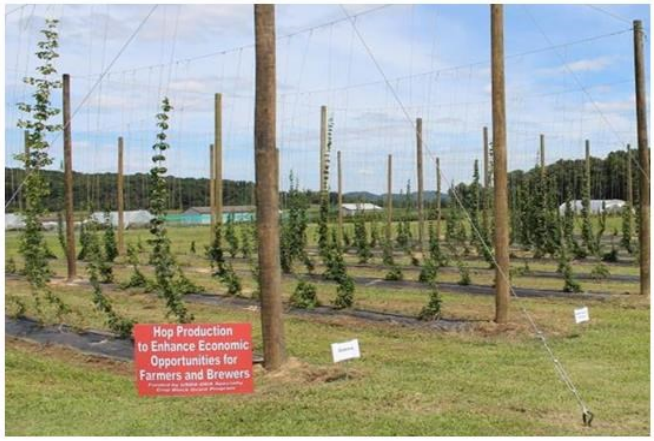
First Friday of the Month
*The tour will be offered in **2016** at both locations for these months:*
March, April, May, June, & July

Time: 10:00 A.M.—12:00 P.M.

Locations:
OSU South Centers
1864 Shyville Rd.
Piketon, OH
AND
OARDC Horticultural
Research Unit 2
5082 Oil City Rd
Wooster, OH

To Register: **(you must preregister)**
Contact Charissa Gardner
at gardner.1148@osu.edu or
at 740.289.2071 ext. 132

DEADLINE to Register:
The Wednesday before the
first Friday of the month



Hosted by Brad Bergefurd & Mary Gardiner

The tour will include:

- Hop yard construction
- Establishment cost
- Bine training
- Irrigation
- Variety Selection
- Fertilization
- And more!

For more information on Hops go to
go.osu.edu/hopsinformation

THE OHIO STATE UNIVERSITY
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oardc.osu.edu | extension.osu.edu

OPGMA
Ohio Produce Growers & Marketers Association

SUMMER tour & field 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 Producer Growers & Marketers Association | 17 S. High St, Suite 200, Columbus, OH 43215
Phone: 614.228.4739 | Fax: 614.221.1989 | opgma@assnoffices.com | www.opgma.org

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

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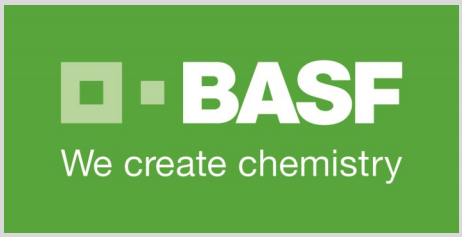
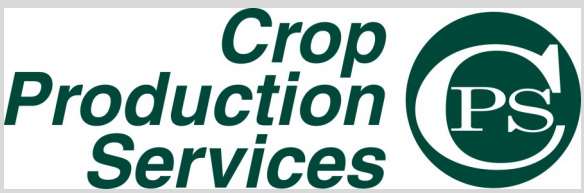
Bayer CropScience





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VegNet Newsletter

COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

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http://vegnet.osu.edu/newsletter

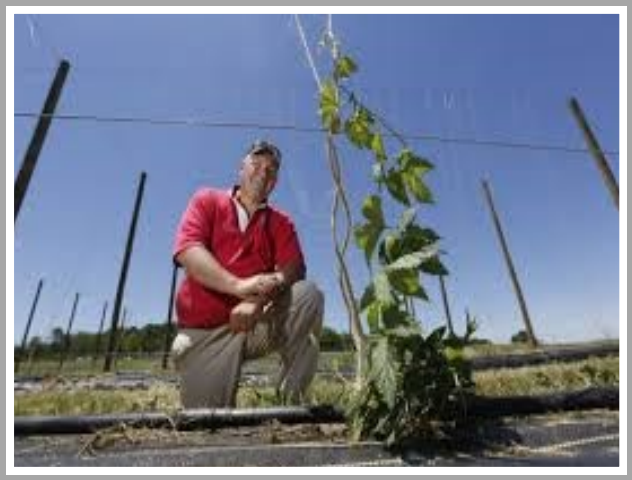
Submit Articles:

To submit an article to the VegNet newsletter please send the article and any photos to Charissa Gardner at gardner 1148@osu.edu. For questions regarding the newsletter contact **Brad Bergefurd** at 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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