

VegNet *The Vegetable and Fruit Crops Teams Newsletter*

<http://vegnet.osu.edu>

Lead Editor and Contributing Author: Brad Bergefurd
Graphic Designer & Editor: Charissa McGlothlin

In this issue:

Vol. 21 Number 21, August 1, 2014

Downy Mildew and Late Blight	1
Upcoming Events	2
Insect Update	2
OSU South Centers Hops Update	3
Southern Ohio Vegetable and Fruit Update	4-5
OSU South Centers Blackberry and Wine Grape Update	5
Squash Vine Borer	6
Managing Bacterial Spot in Peppers	7-8
Ohio Produce Safety & Muck Crop Update	9
Harding County Report & Farm Pesticide Disposal Collection	10
Hops Events in Piketon and Cleveland	11-12
Ohio Organic Vegetable Tour and EcOhio Farm	13
Hardin County Crop Walk	14
About the Lead Editor	15

Downy Mildew & Late Blight

From Elaine Grassbaugh, Research Assistant,
Horticulture and Crop Sciences

Downy mildew on basil

Downy mildew is spreading quickly on field grown basil plants at the OSU Student Farm in Columbus Ohio. Varieties affected are Sweet Basil, Genovese and Lettuce Leaf basil.

Late blight on Potatoes

Late blight has been found on 'Yukon Gold' potato foliage and tubers in Columbus Ohio at the OSU Student Farm.



Late blight on potato has been reported at the OSU student farm
 Photo by Elaine Grassbaugh

2014 Upcoming Events

- July 31** Muck Crops Field Night. Contact Robert Filbrun at filbrun.12@osu.edu
- Aug. 4** Crop Walk in Hardin County. See page 14 for details.
- Aug. 5** Organic Vegetable Tour at EcOhio Farm. See page **13** for details
- Aug. 12** Hops Workshop in Cleveland, Ohio. See page **12** for details.
- Aug. 14** Hops Production Twilight Tour (field night) at OSU South Centers in Piketon, Ohio. See page **11** for details.

Insect Update

from Celeste Welty, Ph.D., Extension Entomologist & Associate Professor of Entomology, Ohio State University

European corn borer: Moth traps at various Ohio locations are showing the early start of emergence of a new generation of adults of the European corn borer, but emergence of large numbers of moths is probably at least one week away. The blacklight trap at Columbus showed a slight increase in the past week, after 3 weeks of no catch. Pheromone traps in Monroe, Clark, Franklin, Wayne, Summit, and Sandusky Counties all caught corn borer moths although only 1 to 4 moths per trap per week. As more moths emerge, pepper and sweet corn crops will be at risk of infestation if preventive measures are not taken to control young larvae as they emerge from eggs.

Corn earworm: Activity of corn earworm remains at low levels at Ohio sites that are part of our pest monitoring network. In the past week, a few corn earworm moths were caught in pheromone traps at Columbus and Fremont, but no moths were caught in traps in Monroe, Clark, Wayne, Medina, Summit, or Huron Counties. In most years, there is an increase in the number of these moths in about mid-August, at which time they are a major threat to sweet corn in the silking stage.

Western bean cutworm: This pest is continuing its eastward spread into Ohio. It is more abundant in northwest Ohio but is now being found at other locations. At sites where the moth is detected, corn plantings should be scouted for presence of eggs or larvae of this pest. Details are found in a fact sheet: <http://ohioline.osu.edu/ent-fact/pdf/0040.pdf>

Trap reports for European corn borer and corn earworm, as well as fall armyworm, western bean cutworm, black cutworm, true armyworm, and squash vine borer can be found online using this link: <https://docs.google.com/spreadsheets/d/1wnApiNAmOEaHk-f9Xwh6UmCGjmfARhqsUp7kAH2JC1U/edit?usp=sharing>

Brown marmorated stink bug: This new invasive pest is continuing its westward spread into Ohio, and spreading outward from established hot spots in Columbus, Youngstown, and Cincinnati. In Columbus, we are seeing it mostly on sweet corn and field corn, where it feeds through the husks on developing kernels. It is also being found in catalpa trees. This week most of the population is large nymphs, and we are starting to see more new adults. As the new adults continue to emerge over the next week or two, we expect to see the stink bugs moving into apples, berries, peppers, eggplant, beans, swiss chard, tomatoes, and other susceptible crops.

Spotted wing drosophila: Our first detection of the year in Ohio was on 4 July, in Franklin County (Columbus), followed by detection on 9 July in Greene and Warren Counties, on 11 July in Sandusky County, and 16 and 17 July in Wayne County. Growers who are treating ripening fruit with insecticide are reporting no sign of infestation of harvested by larvae of the spotted wing drosophila.

OSU South Centers Hops Update at Piketon

from Thom Harker, Research Assistant OSU South Centers

With August just around the corner, means the start of hop harvest is also. With the harvest approaching quickly us, this is the time of year that it is very important to keep a watchful eye of PHI (pre harvest interval). Some of the hops cones are starting to show signs of drying down naturally. Moisture in the cones is not the only important factor to consider when harvesting the cones. We need to keep in mind the aroma of the cones and the lupulin development within the cones. Lupulin is a yellow pollen like substance within the cones, which contains resins and essential oils. These are all important factors to be considered at harvest. Fungicides application continues on hops, pumpkins and tomatoes. Spot spraying of grass herbicide was applied in pumpkins, hops and matted row strawberries.



Hops are getting close to harvest at Piketon

Photo by Ryan Slaughter



Healthy Hop vines at Piketon site

Photo by Ryan Slaughter



Hops vines have exceeded 20 feet tall this season

Photo by Ryan Slaughter



Hops plants growing on vines

photo by Ryan Slaughter



Hops cones

Photo by Ryan Slaughter

Southern Ohio Vegetable and Fruit Update

from Brad Bergefurd, Ohio State University Extension Educator, Ohio State University Extension Scioto County and OSU South Centers

Rain fell throughout most of the growing region this week with amounts ranging from .4 inch to over 2 inches. The heat and higher temperatures last week have accelerated harvests of many crops but this weeks cool morning temperatures into the low 50's have slowed crop maturity once again. Harvests of cantaloupe, watermelon, sweet corn and green beans with outstanding yields, demand, and quality are being reported. Demand remains high for all crops, and prices are still moderate to high at local produce auctions. Sweet corn harvest remains in full swing throughout most of the area with great demand, however, crop maturity has decreased this week with the cooler night time temperatures. Blackberry harvest on rotatable cross arm trellis systems is in full swing with high yields, high prices and great demand being reported. Pinching and training of primocanes continues on standard trellis and rotatable cross arm trellis blackberry systems. Harvest of field cucumber, pickle, summer squash, zucchini, sweet onion, new potato, tomato, sweet corn, cabbage, red beets, head and leaf lettuce, chives, basil, leeks, continues. Harvest of high tunnel tomato, cucumber, blackberry and raspberry continues. Indeterminate tomato varieties are

being topped in high tunnels. Disease and insect pressures continues to increase and preventive fungicide and insecticide spray applications continue to be tightened up and are being applied on a regular schedule. Severe downy mildew infections have been reported on basil from Columbus and Cincinnati areas in all varieties including: Sweet Basil, Genovese, and Lettuce Leaf basil. Weed pressure continues in all vegetable and fruit fields. Cultivation, hand hoeing, and pre and post emergent herbicide applications continue to be performed. Direct seeding and transplanting of all vegetable crops continues. Planting of cucumbers, pickles, fall onions and green beans continue. Broccoli, cauliflower and cabbage for fall crops continue to be transplanted. Staking and stringing of tomatoes, cucumbers, eggplant and peppers continue. Ground continues to be worked, fertilizer spread, beds formed, fumigants applied, herbicides applied, and plastic and drip lines installed in preparation for planting of plasticulture strawberry. Harvest of moderate day-neutral San Andreas strawberry variety continues with good quality and high demand being reported. **Article continued on the next page.**



Sweet corn maturity has slowed this week with cool night temperatures
Photo by Brad Bergefurd



Pumpkins are in bloom with good pollinator activity reported
Photo by Brad Bergefurd

Southern Ohio Vegetable and Fruit Update

from Brad Bergefurd, Ohio State University Extension Educator, Ohio State University Extension Scioto County and OSU South Centers



Basil Downy Mildew is being reported in all varieties Basil
Photo by Charles Griffin



Transplanting of cauliflower, cabbage and broccoli continues
Photos by Brad Bergefurd



OSU South Centers Blackberry & Wine Grapes Update

from Ryan Slaughter, Research Assistant OSU South Centers

Harvesting continues in Blackberries this week. Although exact yield data has not been calculated, it is suspected that there is a definite decrease compared to last year. Veraison is beginning in some cultivars of grapes and subsequently traps for Spotted Wing Drosophila (SWD) were added. To date, no SWD has been identified at the Piketon research station.



SWD Trap in Grapes
Photo by Ryan Slaughter



Ripe Blackberry
Photo by Ryan Slaughter



Ripening Grape cluster, Chambourcin
Photo by Ryan Slaughter

Squash Vine Borer

from Rick Weinzierl, Professor of Entomology, Fruit and Vegetable Crops, University of Illinois

The squash vine borer tunnels in the vines of pumpkins and summer and winter squash; it rarely is found in cucumbers or melons and cannot complete its development except in squash or pumpkins.

Identification. The squash vine borer adult is a black and reddish moth called a clearwing moth because large portions of its hind wings lack scales. These moths are $\frac{3}{4}$ - to 1-inch long, with a 1- to 1 $\frac{1}{2}$ -inch wing span. They are active during the daytime and superficially resemble wasps as they fly about. Larvae are yellowish-white with a brown head, 3 pairs of thoracic legs, and 5 pairs of fleshy abdominal prolegs that bear tiny hooks called crochets. Fully-grown larvae are about 1 inch long. Brownish pupae are slightly less than 1 inch long, and they are found in the soil inside a dark, silken cocoon.

Life Cycle. Squash vine borers overwinter as mature larvae or pupae within cocoons 1 $\frac{1}{2}$ to 3 inches below the soil surface. Moths emerge and begin to mate and lay eggs in June and July in much of the Midwest (earlier, beginning in May, in southern Illinois and similar latitudes). Moths lay eggs singly at the base of plants or on stems and petioles, beginning when plants start to bloom or "run". Larvae feed within stems or petioles for 2 to 4 weeks, leaving brown, sawdust-like frass (droppings) at holes where they entered the stem. In southern Illinois these pupate and produce a second flight of moths in late summer; in the north, larvae or pupae of the first (and only) generation remain in the soil through the winter.



Squash vine borer adult (left) and larva (right) Photo by Rick Weinzierl

Plant Injury. Tunneling within vines destroys water- and food-conducting tissues, reducing plant vigor and yield and sometimes killing vines.

Management. Disking or plowing to destroy vines soon after harvest and bury or destroy overwintering cocoons reduces moth populations within a field in the spring. Staggering plantings over several dates also allows some plantings to escape heaviest periods of egg-laying. Early detection of moths and initial damage is essential for timing insecticide applications. For insecticides to be effective, they must be applied before larvae enter stems or petioles. Scout for moths (pheromone lures and traps are available for monitoring flight periods but are not consistently effective for detecting moth flight) and look for entrance holes and frass as soon as plants begin to bloom or vine. Apply insecticides beginning 5 to 7 days after moths are first detected and at weekly intervals for 3 to 5 weeks, or begin when injury is first noted and make a second application a week later.

Managing Bacterial Spot in Peppers

From Sally Miller, Department of Plant Pathology, OSU, OARDC

We've been receiving quite a few questions about bacterial spot of peppers during the past few weeks. This is not the best time to start thinking about managing bacterial spot (caused by *Xanthomomas*), since like other diseases caused by bacteria, once an epidemic gets underway in the field there is not much that can be done about it. Symptoms may abate in dry weather, but in much of Ohio we have had plenty of rain to sustain bacterial spot epidemics. So the following is mostly about prevention for next season, and includes some photos to help in identification. Of the three leaf spotting bacterial diseases of peppers (spot, "speck", and canker), bacterial spot is the most serious. Bacterial "speck" symptoms on pepper leaves are indistinguishable from those of bacterial spot, and we have not seen speck symptoms on fruit. Bacterial canker is quite easy to differentiation from bacterial spot. It is important to know which disease is present, and also to differentiate bacterial diseases from those caused by other pathogens, or by environmental or other causes.

For more detailed information on bacterial spot management, see my blog post (<http://u.osu.edu/miller.769/>).



Bacterial spot infection on pepper plant

Photo by Sally Miller



Bacterial spot infection on pepper fruit

Photo by Sally Miller

Managing bacterial spot requires an integrated strategy composed of the following elements: 1) pathogen-free seeds, 2) resistant varieties, 3) pathogen-free transplants, 4) proper crop rotation/site selection, 5) cultural management in the field and 6) bactericides.

1) *Start with "clean" seed.* The earlier bacterial spot appears in the pepper crop production cycle, the more serious the disease may be. The first step in prevention of the disease is to exclude the pathogen from the crop. Since this disease is seedborne, obtaining pathogen-free seeds should be a first priority. If seeds are purchased, they should be obtained from a reputable producer. If they have been tested for bacterial spot and the results are negative, there is a relatively low risk that the pathogen may be present. However, seed companies usually don't test for bacterial speck and canker, so seeds should be treated with chlorine bleach (<http://go.osu.edu/kqZ>) to kill any bacteria on the surface. Organic growers may prefer hot water treatment (<http://go.osu.edu/kqZ>) to sanitize seeds.

2) *Choose a resistant variety.* There are numerous varieties of bell and other peppers that are resistant to the common races of the bacterial leaf spot pathogen. Seed companies provide information on resistance to bacterial spot. However, resistance to bacterial spot does not apply to speck or canker. **Article continued on the next page.**

Managing Bacterial Spot in Peppers Continued

From Sally Miller, Department of Plant Pathology, OSU, OARDC

If a variety advertised as resistant to bacterial spot develops spot-like symptoms, a sample should be sent to the [OSU Vegetable Pathology Lab in Wooster](http://go.osu.edu/kqz) (<http://go.osu.edu/kqz>) for diagnosis. Vegetable diagnostic services are supported by OSU and the Ohio Vegetable and Small Fruit Research and Development Program and there is no fee for Ohio vegetable growers. Resistant varieties should never be the sole means of disease management, no matter how tempting it may be to rely on this management strategy.

3) *Use pathogen-free transplants.* The greenhouse environment in which pepper seedlings are produced, if not managed properly, is highly conducive to bacterial leaf spot. Bacteria present on only a very small number of seeds (e.g. 1 in 10,000) can become a significant threat in some greenhouses. The following are practices that will reduce the threat of bacterial leaf spot: 1) practice good sanitation in the greenhouse; 2) use chlorine bleach-treated seeds; 3) do not raise exotic or experimental pepper or tomato varieties, or saved seed, in the same greenhouse with commercial seedlings unless all seeds are treated; 4) keep the greenhouse as dry as possible.

4) *Optimize crop rotation and site selection.* Crop rotation is an important strategy that not only reduces disease problems but also affects weed, insect and nutrient management. For bacterial leaf spot management, a relatively short rotation of two years out of Solanaceous crops is adequate. However, longer rotations will reduce other pathogen populations and should be considered if possible. Site factors to consider for pepper production that will minimize opportunities for bacterial spot development include good drainage and good aeration. These will reduce the amount of time that plants are wet after irrigation or rain, resulting in fewer opportunities for *Xanthomonas* and other pathogens to multiply and spread.

5) *Use cultural practices that minimize disease spread.* Increasing the organic matter content of soil not only improves crop growth and yield, but may also reduce some diseases. Organic amendments such as compost and manures are widely used in this context and should be considered if available within a practical distance from the farm. Organic amendments are best applied in the fall or early spring to allow leaching of excess salts from composts and destruction of any pathogens in manures. The benefit of composts is maximized with high quality composts that have undergone optimal heating to kill weed seeds, pests and pathogens. Other cultural practices are carefully controlling irrigation to minimize the time when plants are wet, and to avoid handling plants when they are wet.

6) *Use bactericides as needed.* There are no really good bactericides for bacterial leaf spot control in peppers. They are especially ineffective in stopping the disease under favorable environmental conditions once it has become established. The combination of maneb or Manex with fixed copper compounds can be used to help prevent the disease. Depending on the weather, variety, history of the field, whether or not the seeds have been treated, and other factors, this bactericide can be applied on a 5-14 day basis after transplants are placed in the field. Maneb is an EBDC fungicide, which some processors have banned, so it is necessary to check with customers to determine if it is allowed. Many strains of *Xanthomonas* are insensitive to some degree to copper, so copper has become less effective over the years. If the other steps in the integrated disease management program have been followed, however, the need for bactericides is significantly reduced.

Ohio Produce Safety

from Lindsey Hoover, Food Safety Program Coordinator, Department of Horticulture

Good Agricultural Practices (GAPs) Training will be offered on August 13th, from 6-9 p.m. in Gallia county. The class will be held on Wednesday, August 13 from 6:00-9:00 PM at the extension office, located at 111 Jackson Pike, Gallipolis, OH 45631. Pre-registration is required. The registration fee is \$20 per person. For the registration form go to <http://producesafety.osu.edu/sites/d6-prsafety.web/files/Gallia%20Co%20GAPs%208-13.pdf>.

If you have any questions about this class, contact Jeff Moore at 740-446-7007 or moore.3036@osu.edu.

For more information about the OSU Fruit and Vegetable Safety Program, contact Lindsey Hoover at 330-202-3555 ext. 2918 or hoover.482@osu.edu.



Muck Crop Update

from Ken Holthouse, of D.R. Walcher Farms and Holthouse Farms

More and more fields are being picked, weather has been good and quality is most generally outstanding. I have seen some of the nicest cucumbers for the first time in a couple of years. Bell pepper is outstanding and good yields. Summer squash is continuing to yield. The fluctuation in daytime and night temps have caused some minor changes in picking schedules but we just “go with the flow”.



Harvest has begun on bell pepper
Photo by Robert Holthouse



Outstanding bell pepper crop quality and yield
Photo by Robert Holthouse



Good pollinator activity on squash crops
Photo by Robert Holthouse

Hardin County Report

from Mark A. Badertscher, Agriculture and Natural Resources Educator, OSU Extension Hardin County

What is that bug in my vegetable garden? Why do my plants have brown spots on the leaves? Why are my tomatoes cracking after they looked good? Hardin County OSU Extension is sponsoring a Crop Walk program on Monday, August 4 from 6:00-8:30 pm. The program will include an emphasis on fruit and vegetable production. The location of the program will be 15237 County Road 209, Kenton.

OSU Extension Horticulturist Brad Bergefurd will be giving recommendations on plant nutrition and soil fertility. Dr. Sally Miller, plant pathologist from the OSU Ohio Agricultural Research and Development Center will be discussing plant disease problems common with fruits and vegetables. Dr. Celeste Welty, OSU entomologist will share information about how to manage insect pests while keeping the beneficial insects around.

The program will be held outside so bring your lawn chair and umbrella in case of rain. There will be a diagnostic table so be sure to bring along any plant problems, plant diseases, and insect specimens for questions and answers. The program will conclude with walk through a produce patch, pointing out produce issues and how to deal with them.

For more information about OSU Extension, Hardin County, visit the Hardin County OSU Extension web site at www.hardin.osu.edu, the Hardin County OSU Extension Facebook page or contact Mark Badertscher, at 419-674-2297. See flyer on page ?

Farm Pesticide Disposal Collection

from the Ohio Department of Agriculture



Department of
Agriculture

PRESS RELEASE

John R. Kasich | Governor Mary Taylor | Lt. Governor David T. Daniels | Director

Reynoldsburg, Ohio –The Ohio Department of Agriculture will be sponsoring a collection for farmers wishing to dispose of unwanted pesticides on August 29 from 10:00 a.m. to 2:00 p.m. at the Kidron Livestock Auction, 4885 Kidron Road, Apple Creek, Ohio 44606.

The pesticide collection and disposal service is free of charge, but only farm chemicals will be accepted. Paint, antifreeze, solvents, and household or non-farm pesticides will not be accepted.

Pesticide collections are sponsored by the department in conjunction with the U.S. Environmental Protection Agency. To pre-register, or for more information contact the Ohio Department of Agriculture at 614.728.6987.



Hops Production Twilight Tour

**OSU South Centers
Piketon, Ohio**

Hosted by Brad Bergefurd



Topics to be covered:

- Trellis construction
- Planting of hops rhizomes
- Training of bines
- Drip irrigation
- Landscape fabric, weed control
- Insect management
- Food Safety & Good Agricultural Practices (GAPS)
- Hops for Ohio craft brewers
- Harvesting
- Processing
- Ohio MarketMaker & marketing techniques
- Disease management
- Variety evaluations
- Yard establishment economics

Special Guests:

- The Ohio Department of Agriculture
- Columbus Irrigation Co. LLC



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

Thursday

August 14, 2014

6:00 p.m. — 9:00 p.m.

Location:

OSU South Centers
Endeavor Room 160
1862 Shyville Road
Piketon, Ohio

Cost: \$15.00

To Register:

Go to <http://go.osu.edu/hopsfieldnight>
You may also contact Charissa
McGlothlin at 740.289.2071 ext.
132 mcglothlin.4@osu.edu

Deadline to register:

August 12, 2014

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

For more information: go.osu.edu/cfaesdiversity



Hops Field Night

Ohio State University Extension
Cleveland, Ohio

Hosted by Jacqueline Kowalski

Learn about these topics:

- Starting your own hops production
- Startup expenses
- Labor
- Variety selection
- Economics
- Pest control
- Irrigation
- Packaging and processing procedures
- Ohio MarketMaker & marketing techniques

Tuesday

August 12, 2014

6:00 p.m. — 9:00 p.m.

Location:

OSU Extension Office
5320 Stanard Ave.
Cleveland, OH. 44103

Cost: \$20.00

To Register:

Contact Jacqueline Kowalski
216.429.8200 Ext. 217
Kowalski.124@osu.edu

Deadline to register:

August 8, 2014



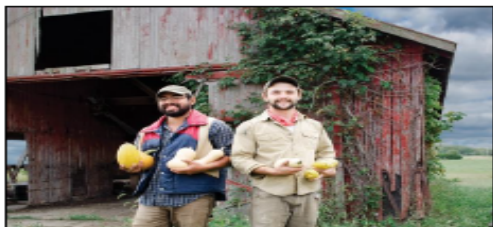
THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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

For more information: go.osu.edu/cfaesdiversity

Organic Vegetable Tour at EcOhio Farm



Tuesday August 5th
9 a.m. – 12 p.m.

EcOhio Farm is a unique partnership between the Cincinnati Zoo and GreenBEAN Delivery. To learn more, check out the following video <https://www.youtube.com/watch?v=TqcDzAl6wiA>.

EcOhio is one of three farms who have partnered with Purdue University researchers to investigate how organic fertility amendments interact with soil factors to influence nutrient release, pathogen incidence, and vegetable productivity. Join us to learn about:

- Organic vegetable production
- Organic fertility management
- On-farm participatory research
- How to evaluate soil health on the farm

Address: 2210 S. Mason Montgomery Rd. Mason, OH 45040

Cost: Free, but pre-registration is encouraged. To register follow this link: [Take the Survey](#). If you have any problem registering please contact Lori Jolly-Brown at 765-494-1301

For more information contact:

Lori Hoagland or Liz Maynard

lhoaglan@purdue.edu; emaynard@purdue.edu

765-494-1426; 219-531-4200

It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue University is an Affirmative Action institution. This material may be available in alternative formats.

PURDUE
UNIVERSITY

PURDUE
EXTENSION
1-888-EXT-1NFO • www.extension.purdue.edu
LOCAL FACES
COUNTLESS CONNECTIONS
• www.localfacescountlessconnections.org

Order or download materials from
Purdue Extension - The Education Store
www.the-education-store.com

Purdue University is an equal opportunity/equal access/affirmative action institution.

Tentative schedule:

- General welcome and introduction to EcOhio
- Overview of the zoo's efforts (ie. wetland restoration)
- Overview of organic vegetable management at EcOhio farm and reference to their relationship with GreenBEAN
- Overview of on-farm research – why it can be helpful and general guidelines for how to do it
- Measuring soil quality/health
 - Why soil sample/how and when to do it/commercial labs/intro to on-farm tests
 - Physical soil properties (bulk density and water infiltration)
 - Chemical soil properties (pH, EC)
 - Chemical properties II (nitrates and labile carbon)
 - Biological properties (solvita test kit)
- Plant health
 - Leaf chlorophyll – phone app and SPAD meter
 - Leaf samples for nutrient analyses
 - Pathogen/insect scouting and how to prepare samples for analysis by University Plant Pest Disease and Diagnostic clinics and centers

OHIO STATE UNIVERSITY EXTENSION

Hardin County Crop Walk

Fruit & Vegetable Production

Brad Bergefurd – OSU Extension Horticulturist
 Dr. Sally Miller – OSU/OARDC Plant Pathologist
 Dr. Celeste Welty – OSU Entomologist

Hardin County Crop Walk program will consist of a diagnostic table and walk through a produce patch to learn solutions of common fruit and vegetable problems. Topics include plant nutrition and soil fertility, plant diseases, and insect pest management. Bring along your specimens for questions and answers along with a lawn chair. Location is about three and a half miles northeast of the Scioto Valley Produce Auction.

Monday

August 4

6:00-8:30 pm

15237 County Road 209
 Kenton, Ohio 43326

Bring plant problems, plant
 disease and insect specimens

Hardin County OSU Extension
 419-674-2297



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
 AND ENVIRONMENTAL SCIENCES

hardin.osu.edu

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



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

VegNet Newsletter

COLLEGE OF FOOD, AGRICULTURAL, AND
ENVIRONMENTAL SCIENCES

Editor, Brad Bergefurd
bergefurd.1@osu.edu
740.289.2071

<http://vegnet.osu.edu>

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.

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

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