

VegNet *The Vegetable and Fruit Crops Teams Newsletter*

<http://vegnet.osu.edu>

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OSU South Centers Update at Piketon

from Ryan Slaughter, Research Assistant OSU South Centers

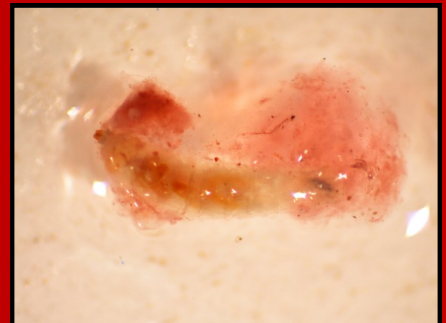
Last Thursday, 8/14, the Spotted Wing Drosophila (SWD) was identified in field traps at our research station. On the following Friday, larvae was found in fruit of both, blackberries and raspberries. The insecticide Mustang Maxx was applied on Tuesday 8/19 at a rate of 4 fl.oz./acre. The Pre-harvest Interval (PHI) for this insecticide is 1 day. Applications cannot be made closer than 7 days apart, and no more than 24 fl.oz./acre can be applied per season. Other insecticides labeled for the SWD with a 1 day PHI are: Delegate 25WG, Entrust 2SC (OMRI certified) and Malathion 8F. Photos below by Ryan Slaughter.



The ovipositor of a female SWD



A male SWD; note the spot on each wing



Larvae suspended in some blackberry pulp

2014 Upcoming Events

- Sept. 16-18** Farm Science Review in London, OH.
- Oct. 14** Pumpkin Field Night at OSU South Centers in Piketon, Ohio.
Contact Charissa McGlothlin at mcglothlin.4@osu.edu or 740.289.2071 ext. 132.

Muck Crop Update

from Robert Holthouse of D.R. Walcher Farms and Holthouse Farms



Bees in Cuke field Photo by Robert Holthouse



Bell pepper field Photo by Robert Holthouse



Bell pepper where drip was plugged
Photo by Robert Holthouse



Bell pepper close to picking
Photo by Robert Holthouse



Bell pepper plants in healthy condition
Photo by Robert Holthouse



New cukes setting
Photo by Robert Holthouse

Organic Vegetable Tour at EcOhio Farm a Big Success

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

Purdue University and Ohio State University Vegetable Specialists taught an organic vegetable tour and field day held at the EcOhio Farm located in Mason, Ohio just outside of Cincinnati on August 5th. EcOhio Farm is a partnership between Green B.E.A.N. Delivery and the Cincinnati Zoo. The zoo leases 50 acres of land to the farm for vegetable and forage production. Some of the crops harvested are used to feed zoo animals, while others are available for purchase by Green B.E.A.N. Delivery or are donated to local charities. 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. This research and results were shared with those in attendance at the field day. Other topics

taught were Organic vegetable production, Organic fertility management, On-farm participatory research and methods to evaluate soil health. EcOhio Operations Manager Ben Nava described the farms organic operations and how they rely on winter rye as an effective tool for biodynamic farming because of its many benefits; including reduction of soil erosion, weed suppression, and the protection of soil-life such as earthworms during freezing temperatures. According to Ben this process works to feed microorganisms by enhancing the quality of the soil and providing long lasting nutrients for their vegetable crops. At EcOhio the Cincinnati Zoo team has been incorporating native plant species as well as building wildlife habitats as a part of the expansive wetland restoration project that runs alongside the production fields.



EcOhio has natural wetland habitat that is being revitalized on the farm Photo by Brad Bergefurd

Organic Vegetable Tour at EcOhio Farm a Big Success Continued...

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



The tour began at the EcOhio packing and cooler shed Photos by Brad Bergefurd



Organic winter squash comprise a majority of EcOhio vegetable acreage Photo by Brad Bergefurd



Dr. Lori Hoagland, Dr. Liz Maynard, Brad Bergefurd and Purdue Research Technicians taught soil health, vegetable nutrient management and monitoring Photo by Brad Bergefurd



EcOhio Operations Manager, Ben Nava welcomes the crowd and describes the 50 acre organic farming operation Photos by Brad Bergefurd



Wayne County IPM Scouting Program Update

from *Rory Lewandowski, Extension Educator, Agriculture and Natural Resources*

Although not confirmed by lab analysis at this point, it is extremely likely that downy mildew was found on cucumbers on August 12. The affected plants exhibited classic downy mildew disease symptoms.

Moth trap counts for both European corn borer and corn earworm were low, but some sweet corn fields are exhibiting fall armyworm numbers and feeding damage just below the treatment threshold.

Several high tunnel tomato growers had outbreaks of tomato hornworm. One high tunnel grower reported collecting and destroying more than 40 large larva. Scouts did note the occasional parasitized hornworm larva.

In fields where the soil has, for the most part, stayed moist and vegetable fruit is in contact with the soil, scouts are finding fruit rot.

Speaking of fruit, codling moth numbers in traps have remained high for the past 3 weeks and apple growers will be spraying to prevent another generation of codling moth larvae from boring into apples. In small fruit, spotted wing drosophila have been found in raspberries, blueberries, grapes and elderberries and control trap numbers have been increasing.



Tomato hornworm on high tunnel tomatoes

Photos by Christine Smedley, IPM scout



Vegetable fruit rot on watermelon
Photo by Christine Smedley



Rot on eggplant
Photo by Christine Smedley



Downy mildew symptoms on cucumber
Photo by Christine Smedley

Southern Ohio Vegetable and Fruit Update

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

Some badly needed rain has fallen across southern Ohio this week with localized amounts ranging from .5 inch to over 2 inches. With the rains came some severe thunderstorms and high winds that lodged sweet corn. These rains were welcomed though, since many areas have received less than an inch of rainfall the past 8 weeks, requiring non-stop operation of center pivots, drip and big gun irrigation on field corn, soybean, vegetable and berry crops.

Harvests of cantaloupe, watermelon, sweet corn, cabbage and green beans continues with outstanding yields, demand and quality being reported. Demand remains high for all crops although prices have become sluggish for #2 and canner grades of produce at local produce auctions. Harvest of field cucumber, pickle, summer squash, zucchini, sweet onion, 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 but yield and quality has diminished. Disease and insect pressures continue especially increased populations of spotted and stripe cucumber beetles resulting in increased bacterial wilt symptoms on cucurbits. Powdery mildew is severe on cucurbits and fungal and bacterial disease infection on pepper and tomato has increased requiring strict preventive fungicide and insecticide spray applications on a regular schedule. Weed pressure continues in all vegetable and fruit fields. Cultivation, hand hoeing and shielded, pre and post emergent herbicide applications continue to be performed. Direct seeding of fall greens, radishes and lettuce crops continue. Planting of cucumbers, pickles, fall onions and green beans continue. Harvest of moderate day-neutral San Andreas strawberry variety continues but has diminished. 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 beginning



Fungal and bacterial disease has infected many cucurbit crops the past 2 weeks requiring tight spray programs Photos by Brad Bergefurd



Above and to the right-Shielded herbicide applications being made for weed control
Photos by Brad Bergefurd



Tomato Late Blight in Northern Ohio

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

Eric Draper, OSU Extension Geauga County Extension Educator, has reported late blight on two tomato farms in western Trumbull County, OH this week. Cool nights and rainy conditions are very favorable for the development of late blight. Once you have seen late blight a few times it is usually pretty easy to recognize, since the symptoms are quite distinct. Leaf lesions appear soon after infection, with a dead center and a fuzzy white border visible on the underside of the leaf. The fuzzy material contains the sporangia that can be blown in the air or splashed in water to other parts of the plant or to new plants. Stem lesions are dark brown to black, and diseased fruit appear coppery in color, often with what appears like a dusting of white material. This white material also contains the sporangia that spread the disease. For more pictures and details, go to my August 13, 2014 post on u.osu.edu/miller.769/.

It is very important that both potatoes and tomatoes be scouted regularly (at least twice per week) for late blight. If late blight is suspected, it can be confirmed by bringing or sending a sample to the [OSU Vegetable Pathology Lab](#) in Wooster or the [OSU C. Wayne Ellett Plant and Pest Diagnostic Clinic](#) in Reynoldsburg. We appreciate hearing from you if late blight is suspected so that we can confirm and alert others.

Growers need to maintain an effective fungicide program on tomatoes and potatoes. This should continue as long as rainy conditions, high humidity and/or heavy dews are expected. If late blight has not been observed and weather conditions are generally dry and warm, use a protectant fungicide on a 7-10 day schedule, depending on how fast the plants are growing. Good protectants are chlorothalanil (Bravo, Equus, Echo), mancozeb (Penncozeb, Manzate, Dithane), and to a lesser extent, copper-based products – use according to label instructions. Under cool wet conditions when late blight is likely, or if late blight has been found on the farm, use one of the following, tank mixed with one of the above protectants: Curzate (3 day PHI), Gavel (5 day PHI), Presidio (2 day PHI), Previcur Flex (5 day PHI), Ranman (0 day PHI) or Tanos (3 day PHI) to the spray tank with a protectant fungicide. Note the Pre-Harvest Interval (PHI) for these fungicides ranges from 0 – 5 days. So far, Ohio late blight strains have been sensitive to Ridomil, so that is another option (but may be risky). Organic producers must rely on applications of approved copper-based products.

If the disease is mainly found in one or a few foci, it is a good idea to remove and destroy the diseased plants. This is particularly important for organic tomato or potato growers. Home gardeners should consider spraying tomatoes and potatoes with a fungicide containing chlorothalanil, and should prune out diseased tissue. Pack up diseased plants in a plastic garbage bag and discard - don't leave them in the field or garden or on a compost pile, where the pathogen can be released into the air and spread to other plants.



Late blight lesions on tomato

Photo by Sally Miller



2014 USDA Community-Supported Agriculture Enterprise Directory Update

USDA Agricultural Marketing Service

Report from the USDA's Local Food Directory Management Team, Marketing Services Division

On Saturday, August 2, Anne Alonzo, the head of USDA's Agricultural Marketing Service, announced that the department is developing three new directories in an effort to better connect farmers and buyers, and enhance awareness of available local food sources.

To update your farm market....All Farm Market owners/managers need to do is go to <http://usdalocalfooddirectories.com/>, then click on "Add or Update a Listing," and then click on On-Farm Markets.

Farm Markets can contact us at: directoryupdates@ams.usda.gov if they have any questions concerning the new USDA National Farm Markets Directory.

OSU South Centers Update at Piketon

from Thom Harker, Research Assistant OSU South Centers

Raised beds were formed and black plastic and t-tape was laid for plasticulture strawberry planting. Pre-emerge herbicide was applied prior to laying of the plastic. Tomato harvest started the week of August 15th, and Hop harvest began August 18th with Sterling, Williamette, Galena and Centennial being harvested. Hops moisture coming out of the field is around 79 percent moisture. Cones were removed from the bines and placed in the oast for drying. When the cone moisture level reaches 8 – 10 percent, they will be removed from the drying oast, vacuum sealed, and packaged. Vacuum sealed bags will be stored in the freezer for distribution.



Hop bines cut for harvest

Photo by Thom Harker



Hop bines cut for harvest

Photo by Ryan Slaughter



Cones in drying oast

Photo by Thom Harker



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

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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

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