

# VegNet *The Vegetable and Fruit Crops Teams Newsletter*

<http://vegnet.osu.edu>

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## Hardin County Report

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

Excellent weather, soils with adequate moisture, and warm temperatures have brought about much field activity for Hardin County fruit and vegetable growers. Plants are being taken out of the greenhouses and transplanted into the fields with plasticulture. Much of this work is done by hand, as many of the growers do not have riding planters. Tillage for seedbed preparation continues in between plantings as producers set their crops. There have been calls the past two weeks for possible herbicide damage from drift which may be coming from adjacent fields next to high tunnels. Even though high tunnels have been closed up for much of the spraying, some damage appears on sensitive crops such as tomatoes, peppers, and cucumbers. Other outside sensitive fruit crops such as grapes and pear trees are also showing possible damage.

**Article continued on the next page.**



A. Pear tree showing damage

Photo by Mark A. Badertscher

# 2015 Upcoming Events

**May 21 & 27** Good Garden Bugs Workshop, 3 locations. For details see page 12.

**May 21** Strawberry Field Night, South Centers in Piketon. For details see page 11.

**June 24** OPGMA Summer Tour. For details see page 10..

*To list your upcoming events in future additions of the VegNet newsletter, please send details to [bergeford.1@osu.edu](mailto:bergeford.1@osu.edu)*

## Hardin County Report Continued...



- A. Tomato showing damage
- B. Pepper showing damage
- C. Cucumber showing damage
- D. Grapes showing damage

**Photos by Mark A. Badertscher**



# North Central Ag Research Station / North Central Ohio Update

*from Allen M. Gahler, Extension Educator, ANR, OSUE Sandusky County*

Lots of fieldwork, transplanting, and direct seeding has occurred throughout Northwest and North central Ohio since the last vegnet, with growers reporting about 50% of processing cabbage transplants in the ground, 30% of tomatoes in the ground, 2 plantings of sweet corn, and several peppers and additional tomatoes being moved outside and prepared for transplant soon. Fruit growers remain optimistic about a good apple crop, and have discovered some live peach buds, with about a 25% healthy crop, existing in the upper 1/3 of the trees. Several varieties of grapes have once again suffered winter damage with significant crop loss expected, depending on the variety. Soil conditions have been very conducive for both vegetable growers and row crop producers the last two weeks, with spotty shower that have been heavy in places, and no rain in others, but overall progress on field work is ahead of normal. Temperatures have fluctuated greatly with several days in the 80's last week, but also days in the 50's. Very spotty frost hit areas of Sandusky and Erie county on May 14, and one grower has reported some tomato damage.

The 2015 Northern Ohio Processing Cabbage Variety Trial was transplanted on May 12, with 15 varieties included. The Northern Ohio Sweet Corn Variety trial was planted May 14 with 26 varieties included and conditions were great for both trials.



**A.** OARDC staff and summer student workers seeding the Northern Ohio Sweet Corn Variety Trial



**B.** Student workers counting and labelling seed for the Northern Ohio Sweet Corn Variety Trial at North Central Ag Research Station

**Photos by Allen Gahler**

# Wayne County IPM Scouting Program

*from Rory Lewandowski, Extension Educator, Wayne County*

## **Vegetables:**

The hot summer-like temperatures during the week of May 4-9 caught some growers by surprise and scouts were reminding growers to keep crops watered and to open up row covers on those vegetables planted into black plastic. This was followed up by scouts reminding growers to cover up the warm season crops against the frost advisory issued for the night and early morning of May 13-14. Overall most vegetable crops are looking good at this point. The most common pests that IPM scouts are noting are some light levels of flea beetles on radishes, cabbage, vine crops and sweet corn, asparagus beetles at threshold level on asparagus and slugs with leaf feeding damage ranging from 2% to 20% on cabbage, vine crops, green snap beans and sweet corn. Some growers are using metaldehyde pellets to control slugs.

Tomatoes in high tunnels are mostly at bloom, fruit set and fruit development stages while tomatoes out in the field under row cover are beginning bloom in some fields. To date, onions, garlic, radish, peas, potatoes, and sweet corn crops look good. Sweet corn, depending upon the planting date is anywhere from emerging to 8-10 inches in height. Many of the warmer season crops like peppers, pumpkins, squash and cucumbers are started but have not grown well yet.

## **Fruit:**

Apples are mostly at petal fall and peaches are also at petal fall with some at shuck split stage of development. There was a large catch of oriental fruit moth in pheromone traps set in peach orchards, resulting in a biofix date of May 7 being set. Codling moth numbers are still low in most orchards, especially those in northern Wayne County, but orchards in southern Wayne County and into Holmes County have caught more codling moths in traps and a biofix date of May 9 was set. All growers are being advised to maintain a fungicide spray program for apple scab and for brown rot in peaches. Any apple or peach orchards with a history of plum curculio damage will be applying insecticide after bloom.

Small fruit development is progressing. Strawberries are at full bloom to fruit set development. Slugs are causing damage by feeding on leaves. Scouts have noted leaf feeding damage from 15-40% in some strawberry fields and have recommended use of slug baits for control. Raspberries and blackberries are at bud development. In some fields the lesser carpenter bee is really working on the pruned tips of canes. Scouts have reported as high as 45% of cane tips showing boring damage from this pest. Blueberries, depending upon variety are at flowering to petal drop stage of development and no pest problems noted. Grape vines are beginning growth and growers are being advised to apply an early season fungicide spray program for control of black rot, phomopsis cane blight and powdery mildew.



# OSU South Centers Update

*from Thom Harker, Research Assistant, OSU South Centers*

Plasticulture strawberry harvest has begun. We started picking a few berries on May 8<sup>th</sup> just in time for Mother's Day. Fruit quality seems to be very high, with large disease free berries being harvested at this time. We are feeding the crop weekly with nitrogen, as well as, making fungicide applications. The hops are being trained to the strings that we dropped early this week. Fertigation of the hops began on May 8<sup>th</sup> and will continue for the next five weeks. Our first application of fungicide was applied this week, via the drip irrigation system. Spring planted malting barley was planted May 5<sup>th</sup> here at the Center. The fall planted malting barley is all headed out at this time.



- A. Fall Planted malting barley
- B. Training of hop bines
- C. Picking Plasticulture Strawberries
- D. Fertilizer Injector in hop yard
- E. Spring planted malting barley

**Photos by Thom Harker**



# Southern Ohio Vegetable and Fruit Update

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

Extended dry field conditions have prevailed over much of the southern Ohio growing area and heat units continue to accumulate. With increased heat units so has vegetable and fruit crop development.

High tunnel tomato harvest which began on April 18 and is in full swing with great quality, fruit size, taste and market demand being reported. However there have been MANY reports of growth regulator herbicide drift injury symptoms on small fruit, field vegetables and tunnel crops resulting in \$1000's in lost yields and quality. Harvest of rhubarb and asparagus continues in full swing with good quality, demand and prices being reported. New potatoes are being dug in high tunnels and lettuce and mixed greens harvest continue in the field and in high tunnels.

Some farms near I-70 pulled row covers and prepared to frost protect on strawberries on May 13 with little frost injury on bloom being reported. Plasticulture strawberry harvest is in full swing with great quality and demand being reported, harvest began at Piketon on March 8. Weekly Nitrogen fertigations continue on plasticulture strawberries.

Reports of total crop losses of unprotected blackberry crops due to extreme cold temperature events experienced this winter continue to come in. Blackberry crops grown and protected with row covers on rotatable cross arm trellis systems are showing minimal winter injury symptoms and 'Natchez' variety was in full bloom in Circleville on May 11.

Planting and transplanting of all vegetable and melon crops continues. Tight fungicide spray schedules are being applied on tree fruit, small fruit, hops and grapes. Burn down and pre emerge herbicides continue to be applied.

Weekly Nitrogen fertigation of hops continues to be applied weekly with bine growth rates of 6 to 10 inches a day. Nutrient deficiencies continue to be reported on hops where none or not enough Nitrogen has been being applied. Downy Mildew has been diagnosed in hop plantings in Wayne and Summit counties on May 13. Hops that were diagnosed with viral infections last season are showing symptoms again this spring. Most hops have been strung and trained. The first burr cone development was reported in Maineville (Warren County) on 5.16.



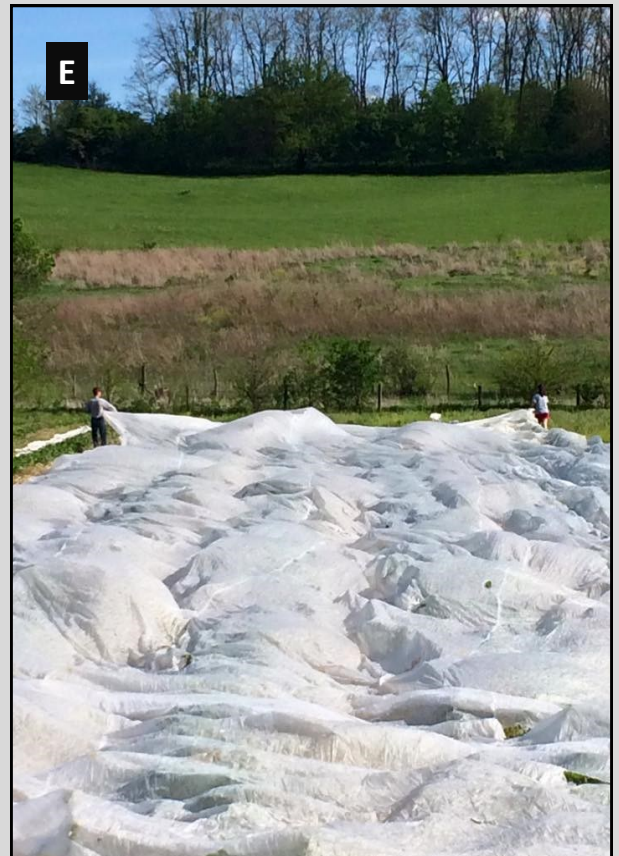
A. Strawberries were protected with row cover applications on 5.13

B. Asparagus harvest continues in full swing

Photos by Brad Bergefurd & Fuhrman Farms



# Southern Ohio Vegetable and Fruit Update Continued...



- A. Hops have begun to burr up in Warren County
- B. Plasticulture strawberry harvest began on May 8 at Piketon
- C. Harvest of high tunnel and greenhouse lettuce is in full swing
- D. Plasticulture strawberries harvest is in full swing**
- E. Strawberries were protected with row cover applications on 5.13

Photos by Brad Bergefurd, Welch Farms, Folck Farms, Fuhrman Farms, and Ohio Valley Hops



# Striped Cucumber Beetles

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

One of the key early season insect pests of cucurbits (squash, pickles, pumpkin, melons) is the Striped Cucumber beetle, *Acalymma vittatum* (Fig 1.). This beetle can inflict severe feeding injury to seedling plants, especially to the cotyledons, and needs to be monitored closely the first few weeks after seedlings emerge in the field. Feeding damage also allows for possible transmission of bacterial wilt (*Erwinia tracheiphila*) into the plant, which is a systemic infection that will stunt or kill the plant, yielding no fruit. Once a plant has bacterial wilt, there is no rescue treatment.



Scouting for this beetle requires that 100 seedling plants total are surveyed at random locations in the field every few days, and if an average of more than 0.5 beetle per plant is found, then treatment is justified. For a selection of foliar insecticides to control this pest, consult the Midwest Vegetable Production Guide chapter on cucurbits, pg. 114 ([http://mwveguide.org/94\\_Cucurbits.pdf](http://mwveguide.org/94_Cucurbits.pdf)). Once plants are past the 4-leaf stage, the action threshold is increased to 1 beetle per plant.

Another option for control of Striped Cucumber beetle is the use of a systemic insecticide as a commercial seed treatment, or as an in-furrow

application at planting for direct-seeded crops, or as a pre-transplant plug drench, or as an at-transplant drench (Fig. 2). These systemic insecticides (chemical group: Neonicotinoids) essentially leach off of the seed coat or are absorbed in-furrow by the plant roots and are circulated throughout the plant to protect against insect feeding. As the plants get larger, the relative concentration in the plant decreases and the protection against feeding pests decreases to the point of being ineffective. These insecticides also end up in pollen and nectar collected by pollinators in very small but measurable quantities, to which much research has been conducted to determine any lethal or sublethal effects. In general, research has shown a lower concentration of insecticide can be detected in pollen and nectar when using seed treatment versus in-furrow application.

Based on studies conducted at Ohio State and other locations, systemic insecticide seed treatment on direct-seeded crops provides good control of striped cucumber beetles for 2-3 weeks after plant emergence compared to 4-6 weeks of control using a full rate systemic insecticide in-furrow at planting. We do not recommend insecticide seed treatment for transplanted crops because it is protecting plants while they are in the greenhouse, where they do not need protection.

Most growers have purchased their seed for this year's crop by now so their options for insecticide seed treatment, in-furrow application at planting, or scouting seedlings as they emerge has likely been made, but still it's important to review all the options available.



We will continue to write more about what is known about the effects of Neonicotinoids on pollinators in future articles.

A. Striped Cucumber beetle adult.

B. Pumpkin seedling treated with systemic insecticide; note all the dead Striped Cucumber beetle adults at base of seedling

Photos by Jim Jaskinski



# What to do With Millennials' Markets

*from Stan Ernst, Business & Marketing Specialist/Ag Economist, Specialty Crops Business Program Manager*

Last week I talked about Millennials, the 20- and 30-somethings who are emerging as U.S. retail powers and already trend setting the food markets. Cynical, time-starved, a bit conflicted in their food preferences, and highly literate on technology are some traits worth considering in planning your produce marketing to this group. Five quick areas to start your thinking...

Millennials (72%) like to cook and want to learn more about food preparation. That makes this group a great target for recipes and hands on cooking opportunities using your products. Whether you're a direct marketer or a wholesale producer teaming up with retailers, give this some thought. Teaming up with a local Extension professional, other educators, chefs, or youth organizations to do public demonstrations using your primary crops or new crops you're bringing to market can appeal to millennials. You might be best off using demonstrators who can reflect their attitudes...and that might make demos a bit more edgy than we baby boomers are used to. Keep in mind that this age group places high value on friends and grew up with more of a herd mentality thanks to group projects and other educational techniques of their era. Use that as you structure things.

Introduce some unique produce to your market if it makes sense. Millennials tend to have a broad worldview, have traveled, and like to experiment with foods from different cultures. We've seen that with younger Baby Boomers too, hence the past interest in vegetables for Asian foods and the growing interest in ingredients for a number of South American cuisines.

Simple is best and transparency is essential. Millennials tend to be driving a number of eating trends related to methods of production. Whether they want "organic" or "local" or "paleo" or "conventional" or whatever, the bottom line is the same. These folks care about where their food comes from and how it's grown. Get ahead of the curve and tell your story before they ask. I've had larger producers say things like "I'm too far removed from the consumer to do that" or "That's the retailers' job." I think you know better today.

Make IT your tool. Remember, Millennials love computers, cellphones and other information technologies. Many of you are using these to help with #3...telling your story. For larger growers, it's part of your fulfillment system. The challenge I have for you is to use these technologies in two-way communication if you're not. Get some quality feedback. Find out how consumers are using your produce. Maybe come up with some minor competitions aimed at educating and increasing the discussion. I know growers who get a lot of mileage out of simply sharing pictures of what's going on in their operation with a quick description of what they're doing and why. Just giving customers an easy way to talk to you goes a long way toward tightening the relationship. Engaging them in a positive (for both sides) dialog can lock in loyalty. Millennials want that conversation... a "personal relationship with their farmer." And they'll spread the word – positive or negative – about how well that relationship with you/your product works. *Article continued on the next page.*

# What to do With Millennials' Markets Continued...

Thicken your skin and learn some things. Remember those attitudes we said you might get from Millennials? Older growers might need to remind ourselves that these aren't our kids or kids from our generation. Millennials may speak directly and even sarcastically... it's not disrespect, it just is. They don't necessarily trust your word or the scientific experts you count on. You younger producers out there who have grown up in rural and farming America need to remember you're not the consumer norm either. As mad as some widely-expressed consumer "beliefs" and attitudes may make you, don't take it personally even when it feels like an attack on everything you believe in by people who aren't out feeding the world. Your job is to grow the best product you can, tell the full story about that product, and listen to what even the most obnoxious opponent of your product might say about it. I've worked with enough farmer-consumer conflict issues over the years to say that nearly all situations will benefit from showing how and why we do what we do, and continuing to answer and ask questions cordially. In fact, we all know farmers who have later benefited from criticism or wild ideas or even "insignificant" parts of a discussion with a customer. And sometimes we just agree to disagree.

Just like any group of customers, you won't be able to please all the Millennials. Yup, there a few extremists out there on many of the production issues that make the mainstream media debates. But I usually find they're on BOTH sides of the issue. There are reasons for that... but that's a big discussion for another time.

Keep growing.



## SUMMER TOUR & Field Day

### Mark Your Calendars!

June 24, 2015

Ramseyer Farms - Wooster, Ohio • Rittman Orchards - Doylestown, Ohio

REGISTRATION IS NOW OPEN!

[WWW.OPGMA.ORG](http://WWW.OPGMA.ORG)

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OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER  
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# Strawberry Field Night

**At OSU South Centers**  
Hosted by Brad Bergefurd

Thursday,  
May 21, 2015  
5:30 — 9:00 P.M.

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

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

## To Register:

You must register  
Contact Charissa McGlothlin at  
[mcglothlin.4@osu.edu](mailto:mcglothlin.4@osu.edu)  
740.289.2071 ext. 132

**DEADLINE** to register is  
May 20 2015.

## Special guest speakers

Terry Masterson and  
Terrance Hunt  
*Adev Automation Inc.*  
*Advanced Robotics*



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**Plasticulture and matted row strawberry field research will be showcased.**

Topics to be covered will include:

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

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# Buckeye Lady Beetle Blitz & Good Garden Bugs Workshop



9:30AM – 4:00PM at three locations across Ohio!

*The content presented at all three locations will be the same*

**WOOSTER:** May 14th, 2015 at OARDC's Fisher Auditorium, 1680 Madison Ave., Wooster, OH

**CLEVELAND:** May 21st 2015 at the OSU Cuyahoga County Extension Office, 5320 Stanard Ave., Cleveland, OH 44103

**DAYTON:** May 27th 2015 at the Montgomery County Fairgrounds, 1001 South Main Street, Dayton, OH 45409

Become part of our laboratory by participating in our citizen science project

Participants can elect to participate in our 2015 Buckeye Lady Beetle Blitz Project. You will receive a toolkit and all the training needed to survey your home garden for lady beetles this summer.

Learn about good garden bugs:

Learn about the diversity of beneficial arthropods that inhabit your garden. Dr. Mary Gardiner will cover information from her new book "Good Garden Bugs" due out in spring, 2015.



Thank you to our local organizers for their help with this event!

- Jacqueline Kowalski (Cleveland)  
[kowalski.124@osu.edu](mailto:kowalski.124@osu.edu) 216-429-8200
- Suzanne Mills-Wasniak (Dayton)  
[mills-wasniak.1@osu.edu](mailto:mills-wasniak.1@osu.edu) 937-224-9654

**PRE-REGISTRATION IS REQUIRED.**

Registration:

The cost for the workshop is \$20.00. Lunch will NOT be provided. Participants can bring a brown bag lunch or visit a local restaurant (a list of local options will be provided). The registration fee includes workshop attendance, beverages, and BLBB sampling kits.

Find the form on our website [ladybeetles.osu.edu](http://ladybeetles.osu.edu) and send it by email to Chelsea Smith: [smith.7231@osu.edu](mailto:smith.7231@osu.edu) or US mail:

Chelsea Smith  
1680 Madison Ave  
Thorne Hall  
Wooster, OH 44601

Checks should be written to "Ohio State University"

Please send your registration form in at least 3 days before the workshop you are attending.

For more information please contact: Chelsea Smith ([smith.7231@osu.edu](mailto:smith.7231@osu.edu))

Learn more by visiting our website: [ladybeetles.osu.edu](http://ladybeetles.osu.edu)



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## VegNet Newsletter

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](mailto: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.



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