Celeryville Update

from Robert (Bob) Filbrun, Assistant Manager, OARDC Muck Crops Research Station, Willard, Ohio

Growers estimate that they are 1-2 weeks ahead of schedule at this time. Crops that are currently in the ground or will soon be direct seeded include: dry bulb onion, parsley, radish, beets, collard, kale and sweet corn. Several growers anticipate that they will start to direct seed cucumbers this week. Transplants of cabbage, leek, collard and kale will also go in the ground this week. Bed fumigation is nearly complete and the laying of plastic is approximately half done.

A. Leek in the fields
Photo by Robert Filbrun
2015 Upcoming Events

May 14, 21, 27  Good Garden Bugs Workshop, 3 locations. For details see page 15.

May 20  Spotted Wing Drosophila Identification Workshop. For details see page 10.

May 21  Strawberry Field Night, South Centers in Piketon. For details see page 14.

June 24  OPGMA Summer Tour. For details see page 13.

To list your upcoming events in future additions of the VegNet newsletter, please send details to bergefurd.1@osu.edu

Muck Crops Research Station Update

from Robert (Bob) Filbrun, Assistant Manager, OARDC Muck Crops Research Station, Willard, Ohio

Two acres of Russian Dandelion were transplanted at the end of last week. Approximately three acres of beds were raised and medium red clover and barley were drilled as a cover crop around the perimeter of our south field and in alleys between the replicated plots. Honeybee hives are getting more active with the warm weather; the worker bees are busy cleaning out dead bees and forager bees continue to bring in light yellow pollen.

A. Russian Dandelion being transplanted in the fields
B. Working bees busy cleaning out dead bees

Photos by Robert Filbrun
Produce growers in Hardin County have been busy plowing and tilling soil in fields. Some plastic has been laid down in fields along with some smaller patches set. The biggest challenge so far has been dealing with the cold temperatures as some growers have reported issues with plants in greenhouses and some frost damage to plants in patches. There has been a large amount of activity in the past week as soil is starting to dry out and temperatures are rising.
Wayne County IPM Scouting Program
from Rory Lewandowski, Extension Educator, Wayne County

Week of April 27-May 1
The Wayne County IPM scouting program started this week. Scouts are reporting that while asparagus is growing, some spears suffered frost damage. Onions were planted last week and this week in many grower fields. Some sweet corn planting started this week. Tomatoes are growing in high tunnels. Some cherry tomatoes had fruit developing.

In fruit many apple trees are at tight cluster to pink stage of development and codling moth traps were set in orchards. Grapes are breaking bud. At this point it, looks like there will be a peach crop this year. Scouts did note some damage on thornless blackberry canes attributed to rabbit feeding over the winter.

A. & B. Winter damage by rabbits to thornless blackberry canes

Photos by Art Sigler, IPM Program Scout
Talkin’ ‘bout that (Millennial) Generation
from Stan Ernst, Business & Marketing Specialist/Ag Economist, Specialty Crops Business Program Manager

Baby Boomers have controlled marketing culture, diets and food product development for, well, a generation or so. Those Americans born between 1946 and 1964 changed the food world in many ways with their interests in variety, convenience and healthy eating, with the money to make markets. Produce growers benefitted from Boomer’s year-round grocery expectations for fresh veggies their development of related technologies and supply chains. Plus, there were various waves of specialty crop demand, produce-oriented diets, vegetarianism, immigration shifts and other Boomer trends that pushed produce expansion.

They’re still around. They’re still spending. But if your marketing plan is based on Boomers, you might reconsider. Enter the Millennial Generation. They’re hard to define. Harder to target. And they’re the emerging market power.

Millennials were born sometime between the early 1980s and the early 2000s, depending on who you ask, and are currently 42% of the U.S. population. In the next few years, they’ll be over half the working population and control more than 1-in-3 retail dollars. We’ve been talking about how cynical these consumers are ever since their spending power started showing up a decade or so ago. They don’t believe advertising. They’re not brand conscious or loyal. Their food preferences are consistent, but they’re big experimenters too. Millennials are starved for time and use technology to be more efficient. But they take time for what’s important to them.

On the whole, I think Millennials will be good for the vegetable industry. They may have grown up on fast food, but 72% claim to enjoy cooking and want to learn how to cook more. Most surprising to some, these 20- and 30-somethings are preparing fresh food at home more than other age groups,. They’re the leaders of the fresh-and-less-processed food movement, with fresh produce a cornerstone. This is a generation that, because friends may be more important than family, seems to have rediscovered food-centered gatherings and experimentation. Because they especially like information technologies, Millennials are bound to share and promote whatever (and whoever) they’re “into.”

What’s the catch? It’s in the attitude…Millennials are often cynical and self-focused. They vote their favorite trends with their dollars (regardless of income), and can turn on you the minute you or your product doesn’t suit them or what they think is important. And they tell their friends. This is the generation that has thoroughly embraced the blog, other social media, and food activism. Despite not being very brand-loyal in general, Millennials want “brand relationships” when it comes to fresh and local foods and other products they see as part of their lifestyle image. They respond to companies’ cultural and lifestyle behaviors and likely base what brand loyalty they have on that.

Next time… what to do with Millennial markets.
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 have been rapidly accumulating the past 10 days. With increased heat units so has vegetable and fruit crop development.

High tunnel tomato harvest began on April 18 and is in full swing with great quality, fruit size, taste and market demand being reported. These plantings went in mid-January and early February. Harvest of asparagus is in full swing with great quality and market demand being reported. Harvest of rhubarb is underway with good quality being reported and some premature seed stalk development occurring in some plantings.

There was need for frost protection using overhead irrigation and/or row covers on plasticulture and matted row strawberries in several areas a few evenings and mornings from April 20 through April 29, with little frost injury on bloom being reported. Row covers and hot caps were also applied to early planted tomatoes and summer squash the evenings of April 23 and 24th. Plasticulture strawberry harvest is forecasted to begin within 2 weeks. There are many reports of total crop losses of blackberry crops due to extreme cold temperature events experienced this winter. Blackberry crops grown and protected on rotatable cross arm trellis systems are showing minimal winter injury symptoms.

Sweet corn planted under clear plastic the week of March 23 is growing very well with good stands being reported. However, plastic sweet corn planted the last week of March and the first week of April had poor and spotty emergence on heavier soils due to a lack of sunshine and cold and wet soil conditions during this 10 day period, which resulted in rotting seed. Some of these fields had to be tore up.

Planting and transplanting of all vegetable crops is well underway with pepper transplanting beginning April 27 and tomato transplanting to the field began April 19 in Lowell and Bainbridge areas.

A. Hot caps and row covers were applied for frost/freeze protection 4/23-4/29
B. Plastic has been removed from plastic sweet corn
C. Strawberry planting is in full swing throughout Ohio

Photos by Brad Bergefurd, Witten Farms, & Patterson Farms
Southern Ohio Vegetable and Fruit Update

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

Pest issues include flea beetles on brassicas, fungus gnats and aphids in high tunnel tomato, frost injury on strawberry and vegetable plants, and seed rot. Here is research report from Cornell that reports organic and non-organic control measures for flea beetle control [http://www.uvm.edu/vtvegandberry/factsheets/fleabean.html](http://www.uvm.edu/vtvegandberry/factsheets/fleabean.html). The Midwest Vegetable Production Guide is also a great and quick reference guide for labeled control measures for commercial vegetable crops [http://mwveguide.org/](http://mwveguide.org/).

Raised beds have been being made and plastic mulch being laid the past 10 days. Beds and soil continue to be tilled and fertilizer knifed in and the last of the trees are being planted in new apple plantings. Deer fence is being repaired and erected on several fruit and vegetable farms throughout southern Ohio for deer pressure is VERY HEAVY. Tight spray schedules are being applied on tree fruit, small fruit and grapes. Burn down and pre-emerge herbicides continue to be applied. There have been a few cases of growth regulator herbicide drift injury being reported on high tunnel and field fruit and vegetable plantings.

Weekly Nitrogen fertigation of hops has been applied the past 3 weeks with plant growth rates of 2 to 3 inches or more a day. There are nutrient deficiencies being reported on hops where none or not enough Nitrogen has been being applied to hops plantings. Hops that were diagnosed with viral infections last season are showing symptoms again this spring. Most hops have been or are being strung and trained. An estimated 50 acres of new hops have been planted the past 6 weeks with several fall planting sites being prepared and trellises erected.

A. Hops have been trained and strung throughout Ohio
B. Asparagus harvest (began over the Easter weekend) is in full swing
C. Raised beds are being made and Plastic mulch is being laid

Photos by Brad Bergefurd, Mankato Farms, & Can-Du Farms
Wooster Hops Research Update

Chelsea Smith, Research Assistant, OSU Department of Entomology

On April 21st we held a pruning workshop. Growers gained hands-on experience pruning back the first growth. Watch the Ohio Hops Facebook page (facebook.com/OhioHops) for information about future hands-on workshops.

Since then, the second growth was knocked back a bit by freezing nighttime temperatures in Wooster. However, hops are a tough plant! We are expecting them to come back strong. We are currently weeding the hills. The landscape fabric is great for suppressing weeds between the plants. However, we still have weeds to control directly around the plants. Dandelions have found their way in and we'll have to pull them out by hand. It's nice to see floral resources for the bumble bees which are currently abundant on the farm, but this particular dandelion is not welcome and is going to have to go.

A & B. Growers pruning hops
C. Dandelions needing pulled from hops yard

Photos by Chelsea Smith & Thom Harker
Because of crop disease, growers have long been aware that microbes can do harm. Although many have appreciated that microbes can also help in farming, purposefully adding microbes to soils and crops with commercial inoculants is a relatively new but rapidly expanding practice. In fact, the number of product manufacturers, the diversity of products, and range of claims made about their effects on crops and farms are increasing very fast. For example, products now contain living or dormant microbes, byproducts of their activity or both. Also, dozens of microbes within bacteria, fungi and mycorrhizae categories are available. And, in advertisements, potential users are told that product use will lead to “greater vigor, more disease resistance, higher yield, larger roots” and many other types of effects.

Overall, microbe-based products are plentiful, diverse, expensive, largely unregulated in labeling, and usually minimally tested by independent teams before or after release. Therefore, it is easy to understand why choosing a microbe-based product can be difficult for growers.

With this in mind, we have initiated a process to take some of the guess-work out of selecting a microbe-based product. Going forward, we aim to assist growers in using them more effectively, also. Our first step has been to create a searchable, sortable, user-friendly interface (database) including key information on one class of products. The 153 products at the interface (http://hcs.osu.edu/vpslab/organic_microbe-based_products) share five characteristics listed at the homepage. Users can search and sort products by composition, manufacturer and other criteria. They can also obtain copies of product labels and material safety data sheets (MSDS).

We plan to add more information and functionality to the interface. For example, other classes of products such as microbe-based crop protectants will be added. Product users will be able to share comments on product performance and links to university-based reports will be given. We welcome your feedback on the interface. For questions about the interface, please contact me (wang.2735@osu.edu), Dr. Matt Kleinhenz (kleinhenz.1@osu.edu), Stephanie Short (short.189@osu.edu), or Julia Laudick (laudick.15@buckeyemail.osu.edu).
North Central Ohio Report
from David Francis, Professor Department of Horticulture and Crop Science

High tunnel spinach and mixed greens are abundant. Open field asparagus harvest has started.
Greenhouse Seeding for transplant Processing Tomatoes is nearing completion. Field transplanting has started in Indiana.

Spotted Wing Drosophila Identification Workshop
from Jim Jasinski, IPM Program; Celeste Welty, Dept. of Entomology

Trapping for Spotted Wing Drosophila is only the first step to managing this small fruit pest. Join us for a 90 minute workshop in Wooster on the OARDC campus on May 20th to learn how to identify adult male and female SWD, a relatively new pest in Ohio that attacks blackberries, raspberries, blueberries, strawberries, grapes, and peaches. Learn how to identify these flies using a stereo microscope, and how to separate them from other insects commonly captured in the baited traps. Space for the workshop is limited to 18 participants, so please register by May 15th at: https://www.surveymonkey.com/s/SWDid2015

The workshop will be May 20th from 1:00-2:30 p.m. at 1680 Madison Avenue, Research Services building (#1 on map), room 130, OARDC campus (http://www.oardc.ohio-state.edu/secondary2/OARDC_Map.htm).

If you have any questions, please contact Jim Jasinski, Jasinski.4@osu.edu, 937-484-1526.
Fifteen varieties of cabbage were entered in the 2015 variety trial, which were seeded April 3rd and have emerged. Pepper variety trials have been seeded, and include 20 bells, 9 Jalapeno, and 7 Banana varieties. Seedlings for tomato breeding projects area ongoing at the North Central Ag Research Station, and we have received seed for 23 SH2 and 3 Se varieties of sweet corn for the variety trials.

The first Muck crop breakfast of the season was held this week, and growers are reporting good progress with onion planting completed, significant sweet corn acreage in the ground, beds formed, plastic laid, and a fair amount of tillage done. With the warm-up next week, we expect to see cabbage transplanting, more sweet corn planted, and prep for tomato transplanting. Overall growers are reporting great conditions and progress at least a week ahead of last year.

Orchards in Sandusky and Ottawa County are reporting that there may be a partial peach crop this year, with the upper 1/3 of the trees having live buds. Mid-to upper 20's over two nights last week may have decreased that number, but there is hope for at least a few peaches this year. Peach growers are now sharpening their pencils to decide how they will manage this year's potential crop, since they will have to treat the peach grove with pesticide applications as if there was a full crop, risking that expense against the potential for less than 1/3 of a normal harvest. Many older trees that have suffered through the last two brutal winters have either been lost altogether or are being pulled and replaced. Fruit growers are also busy planting new apple trees, continually pruning, and reporting good apple tree condition.
Spotted Wing Drosophila (SWD) flies have become a devastating pest for fruit farms across Ohio. This pest hit Ohio in 2011 and attacks healthy, ripening fruit which can destroy the marketability of an entire crop if not properly controlled. SWD will feed on a myriad of fruits and prefer raspberries, blackberries, blueberries, but are known to infest grapes, peaches, plums, strawberries, and cherries. Fruit at low risk of infestation are pears, apples and tomatoes. The larvae feed on the inside of the fruit for several days and there are several generations each year which enables them to attack so many different fruit species and ripening periods.

Growers should trap for adult SWD and as soon as one is found in the trap, a spray program with residual activity should begin and continue every seven days from the start of ripening through final harvest. Rotating the insecticide mode of action used throughout the season is critical to prevent SWD from developing resistance to a certain class of products. SWD can also affect home fruit growers and there are products available for home fruit production as well.

OSU Extension will host two Spotted Wing Drosophila Sprayer Optimization Clinics in Southwest Ohio on May 11. The first clinic is in Xenia, from 12:00-2:00 p.m., at Berryhill Farm (127 E. Krepps Rd). From 4:30-6:30, a second clinic will be at the Champaign Berry Farm in Urbana (meet at 2560 South Mutual Union Rd). The clinics will cover sprayer calibration, water sensitive paper demonstration, nozzle selection, and pressure as well as other topics for an effective spray program. A sprayer will be used to demonstrate calibration and practices. There is no cost to attend, but please RSVP. If you plan to attend the Xenia clinic, call 937.372.9971x114 or email Griffith.483@osu.edu. If you plan to attend the Urbana clinic, call 937.484.1526 or email Douridas.9@osu.edu. Information on SWD, including how to build a trap and recommended insecticides, can be found at: http://entomology.osu.edu/welty/fruit_info1/Fruit_info.html.
Spotted Wing Drosophila Webinar
from Jim Jasinski, IPM Program; Celeste Welty, Dept. of Entomology

Learn about the basics of adult monitoring including various baits, trap styles, and field placement on Wednesday, May 6th from 10:30 a.m. to noon. This will be followed up with key points in cultural and chemical management to be taken if adult SWD flies are detected in a trap. The last part of the webinar will include how to inspect fruit for SWD larval infestation using a simple salt water test.

This webinar can be viewed from any location with a high speed internet connection. To register for the webinar, complete this form (https://www.surveymonkey.com/s/SWDmm2015) or call 937-484-1526 to register, and we will send you the webinar link.

If you do not have a high speed connection at your home or business, here is a list of Extension offices that will host the webinar for you to attend, please contact them directly to register so they can make sure space is available:

**Athens County**, Ed Brown, brown.6000@osu.edu, 740-593-8555  
**Champaign County**, Amanda Douridas, douridas.9@osu.edu, 937-484-1526  
**Defiance County**, Bruce Clevenger, clevenger.10@osu.edu, 419-782-4771  
**Hardin County**, Mark Badertscher, badertscher.4@osu.edu, 419-674-2297  
**Mercer County**, Dennis Riethman, riethman.24@osu.edu, 419-586-2179  
**Monroe County**, Mark Landefeld, landefeld.6@osu.edu, 740-472-0810  
**Portage County**, Jeannie Stenson, stenson.16@osu.edu, 330-2966432  
**Ross County**, Chris Bruynis, bruynis.1@osu.edu, 740-702-3200  
**Washington County**, Levi Morrow, morrow.169@osu.edu, 740-376-7431  
**Wayne County**, Rory Lewandowski, lewandowski.11@osu.edu, 330-264-8722
Fitting ground, getting ready for plastic. The peppers are a little ahead of where we like for them to be.

A. & B. Peppers ahead of schedule

Photos by Robert Holthouse
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 McGlothin at mcglothin.4@osu.edu
740.289.2071 ext. 132
DEADLINE to register is May 19, 2015.

Special guest speakers
Terry Masterson and Terrance Hunt
Adev Automation Inc.
Advanced Robotics

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

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information http://o.osu.edu/cfaesdiversity
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 216-429-8200
• Suzanne Mills-Wasnialk (Dayton) mills-wasnialk.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 and send it by email to Chelsea Smith: smith.7231@osu.edu or US mail:

Chelsea Smith
1680 Madison Ave
Thorne Hall
Wooster, OH 44691

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)

Learn more by visiting our website: ladybeetles.osu.edu

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

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.