Ohio Loses an Outstanding Vegetable Fruit Pioneer, Bill Fulton

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

The Ohio Fruit, Vegetable and Direct Marketing Industry lost a dear friend and huge supporter this week. Bill Fulton, who, along with his wife, Joyce, owned and operated Fulton Farms http://fultonfarms.com/ for 62 years, one of the most diversified specialty crop and direct marketing farms along the well-drained Great Miami River southeast of Troy, Ohio (continued on the next page).
Ohio Loses an Outstanding Vegetable Fruit Pioneer, Bill Fulton (continued)

From my many farm visits I have made to Fulton Farms over the past 35 years, I will greatly miss my MANY hours I have spent with Bill, riding in his pickup truck from vegetable field to vegetable field and I so appreciate the knowledge and wisdom he shared and taught me.

Bill was a specialty crop pioneer researching and growing just about every fruit and vegetable crop imaginable from asparagus to zucchini, including many greenhouses of bedding plants and hanging baskets, Christmas trees, apples, blackberries, raspberries and even special varieties of field corn for the production of Cornnuts snack foods. Bill was always the first in Ohio to explore, research and adopt new production techniques, including plasticulture production, drip irrigation, row covers, no-till pumpkin production, plasticulture strawberries, sweet corn on plastic, and high tunnels (over 20 years ago before they were called high tunnels). In the past 10 years he and his staff have certified acreage and raise organic produce operating one of the largest organic Community Supported Agriculture (CSA) businesses in Ohio and in the Midwest.

Along with his wife Joyce, they operate one of Ohio’s finest direct-to-consumer farm markets where they renovated and converted a beautiful 100-year-old barn on their farm into one of Ohio’s best retail farm markets. Over the years, they have also operated an ice cream parlor, gift shop, and coffee shop in their farm market. Bill and Joyce have been huge supporters of the Ohio direct farm marketing industry, where they supported the past Ohio Direct Agricultural Marketing Association (DAMA) and they have hosted several national marketing tours over the years.

Bill served on the Board of Directors of the Ohio Produce Growers and Marketers Association (OPGMA) and supported the Ohio Vegetable and Small Fruit Research and Development Program (OVSFRDP) which supports fruit and vegetable research and marketing efforts in Ohio. He and Joyce were also instrumental with the starting of the annual Troy Strawberry Festival.

Bill’s reach of involvement and support of the Fruit and Vegetable Industry went well beyond Ohio. Bill was past president and charter member of the North American Strawberry Growers Association (NASGA) and was active in the North American Farm Direct Marketing Association (NAFDMA).

This is a note from Dr. Matt Kleinhenz from OSU Horticulture and Crop Science regarding Bill’s passing, “It is also important to mention that Bill, Jim, and the Farm have been large supporters of OSU/OSUE/ OARDC, at least in my 18-year memory. They have hosted on-farm research and tours, contributed to funds that supported research, admired, and helped in other ways.”

Here is the link to Bill’s obituary:

This is another great article on Bill in the Dayton Daily News where past OPGMA Director Mike Pullins reflects on Bill’s involvement with the Ohio Fruit and Vegetable Industry:

Please keep the Fulton family in your prayers and thoughts.

Bill Fulton
Photo by Dayton Daily News
Research Enhancing Vegetable Production through Grafting

From Mohmoud Soltan, Bizhen Hu, and Matt Kleinhez, Department of Horticulture

Some U.S. growers have known for a long time that they can benefit by making and/or using grafted vegetable (tomato, pepper, eggplant, watermelon, cantaloupe, cucumber) plants. However, in recent years, the number and diversity of growers interested in and profiting from grafting have risen sharply. Ohio growers would be wise to learn more about grafting.

Overall, fruit growers use grafted plants because doing so helps them maintain and increase fruit yield when other tactics, strategies, or inputs are less effective or more costly than they would like. Grafted plants can be less susceptible to certain soilborne diseases and abiotic stresses (e.g., salinity, low fertility), be more vigorous, and offer greater seasonal yield potential than standard, ungrafted ones. Also, fruit from grafted watermelon plants may be larger, sweeter, and firmer, and have higher levels of lycopene, display less hollow heart, and hold in the field longer. Not surprisingly, the market for grafted plants is increasing and seedling producers are stepping up supplies for both commercial and hobby growers. Based on prices that gardeners pay, grafted plants (especially ‘novelty’ types with, for example, two scions) have special appeal. (Continued on next page)

![Grafted tomato plants that differ based on where along the rootstock stem they were grafted and when: 1) standard position near the cotyledons (3/22/16), 2) high position two nodes above the cotyledons (4/4/16) and 3) high position three nodes above the cotyledons (4/4/16). Open yellow circles indicate where the rootstock (‘Kaiser’) and scion (‘Cherokee Purple’) seedlings were grafted. Graft position is important because of planting depth and its possible effects on handling and planting grafted plants and their performance in the field. Growers are normally encouraged to set plants in the field so that graft unions (circled areas) remain above the soil line, especially in disease-infested soil. For growers who prefer to “plant deep”, this may be difficult with standard grafted plants. So, we are experimenting with grafting high on the rootstock stem and with stretching the rootstock hypocotyl before grafting. We use tomato and pepper in this work.](image)

Photo by Mohmoud Soltan and Matt Kleinhez
Vegetable Production through Grafting (continued)


We work to help Ohio growers benefit from grafting. Some of our research focuses on grafting methods while other experiments evaluate the performance of grafted plants in fields and high tunnels and in conventional, organic, and other systems.

For example, typically, rootstock and scion seedlings are grafted near their cotyledons (e.g., see http://u.osu.edu/vegprolab/research-areas/grafting/resources/grafting-guide/). However, some growers prefer to use large transplants and bury three or more nodes to encourage rooting. Well, burying the lower nodes of scions of grafted plants in disease-infested soil is counterproductive. So, in one experiment, the success of grafting the scion onto the second or third node of the rootstock was tested in both tomatoes and peppers. The picture on the previous page shows plants created using the standard and “high” grafting technique we studied. When an experienced grafter completed the work, grafting using these techniques did not affect our success rate (number of successful grafts versus number of grafts attempted) in either crop. However, less experienced grafters found high grafting to be more challenging than standard grafting. Next, we will document the performance of standard and high-grafted plants in field and high tunnel plots, including on farms interested in cooperating.

Also, grafted plants must heal for 10-14 days before they are planted. Light, temperature, and relative humidity are important during healing, but people often ask, “which is MOST important?” Most agree that healing areas should be constructed with relative humidity, temperature, and then light in mind. So far, in practice, a large percentage of healing areas are dark or very dim. Our research has shown, however, that supplying moderate levels of light during healing can speed the process, so long as temperature and relative humidity levels are appropriate. This and related findings are changing the way people design healing areas.

Contact Matt Kleinhenz (ph. 330.263.3810; kleinhenz.1@osu.edu) for more information.

Asparagus Harvest Has Begun

From Dr. David Francis, Horticulture Specialist, The Ohio State University

Asparagus harvest began in North Central Ohio the week of April 25, 2016. Product is now appearing in local farmers markets. What looked to be an early harvest was set back by cool soil temperatures exacerbated by the April 9 storm. The crop has now recovered well and harvest is expected to peak in three weeks. The United States Department of Agriculture Economics Statistics and Market Information System lists Ohio as the 7th ranking state for number of farms with Asparagus and 15th in area harvested (based on 2007 census data). Asparagus is a perennial in the lily family. Harvest in Ohio ranges from late April through June. Production tips are available from The Ohio State University Extension Fact Sheet, HYG-1603-94, online at http://www.pickensmg.org/Gardening/growing-asparagus.pdf and from Cantaluppi Jr., C. J., and R. J. Precheur. 1993. Asparagus Production, Management, and Marketing. Columbus: The Ohio State University. Available from estore.osu-extension.org.
The Wayne County Extension IPM scouting season began the week of April 25. Cool temperatures and wet soil conditions have slowed planting progress and the development of vegetables that have been planted to this point. High-tunnel tomatoes are the most advanced at this point with several growers having tomatoes that are in flower and with fruit developing (see photos). Other crops growing in high tunnels include cucumbers and green snap beans. Some growers have just recently put tomato transplants out in the field and are covering those plants with row covers hoping that warmer temperatures will soon arrive. There are other warm-season vegetables that have been planted in some fields and are currently under row covers, including cucumbers and summer squash. A few growers have some sweet corn planted under plastic, and most of that corn is 4 to 6 inches tall. Onions, garlic, peas, cabbage, cauliflower, and broccoli are out in fields and looking good at this point. Scouts have observed some light flea beetle and slug feeding damage on some cole crops.

With regard to fruit, it appears that Wayne County growers may have dodged a bullet with our cold April nights. Strawberries, blueberries, brambles, apples, and peaches all have the potential for decent crops at this point. We saw high codling moth numbers in one orchard in southern Wayne County the week of April 25 that prompted a biofix date. Codling moth numbers have been low in other orchards that are being monitored. Oriental fruit moth numbers averaged more than 10 per trap this week in a southern Wayne County orchard, while traps in peaches in the northern part of the county contained very few moths. Strawberries and blueberries were in full bloom. Orange rust was noted on some brambles by scouts this past week.

In general, growers are looking for some warmer temperatures and maybe a little less rainfall to help them get more planting done and to help the development and growth of both vegetables and fruit.
Root Maggots

From Celeste Welty, OSU Extension Entomologist

Root maggots are the immature stages (larvae) of several different species of flies. The maggots inhabit the soil and consume roots and underground plant parts. The adults live above ground and do not damage plants. Species that are important pests of vegetables are seedcorn maggot (Delia platura), cabbage maggot (Delia radicum), onion maggot (Delia antiqua), and bean seed maggot (Delia florilega). The carrot rust fly (Psila rosae) causes similar problems.

Root maggots kill or weaken plants or make them more susceptible to injury by diseases. A grower might first suspect a maggot problem when plant emergence is poor, or when leaves become discolored and wilted as the result of root pruning and girdling by maggots. Cold, wet weather can seriously aggravate problems associated with root maggots, particularly when plants are small, or have poorly developed root systems. The insects are active and develop at temperatures as low as 40F, while most plants grow very slowly at such low temperatures and cannot recover from maggot injury. With the onset of warmer, drier conditions following cool, wet weather, plants with maggot-damaged root systems often collapse.

The seedcorn maggot and bean seed maggot attack germinating seeds and seedlings of a wide range of plants, including lima, snap, and dry beans, peas, soybeans, corn, wheat, cucumbers, melons, squash, seed potatoes, lettuce, spinach, cole crops, and onions, and can develop on plant debris and weed seeds in the soil. Typical plant injury by the seed maggots is feeding on the cotyledons and developing shoot before the seedling emerges through the soil surface. Plant food reserves are reduced, and the growing point may be removed. Signs of maggot attack are delayed or decreased seedling emergence, tissue damage and sometimes infection of cotyledons, and formation of "snakeheads" or "y-plants" when the growing point is destroyed. Plants differ in their susceptibility to damage by the seedcorn maggot. Cucumber, winter squash, snap and lima beans have shown significant stand reductions when only a few maggots per seed are present, whereas peas and soybean usually require many more maggots per seed to show significant reductions.

The onion maggot infests onions, leeks, shallots, garlic, and chives. Maggots bore into underground stems and consume the interior of bulbs, reducing stands and decreasing the uniformity of remaining plants. A single maggot can destroy up to 20 small seedlings. Injury to older plants may result in wilting, stunting, internal damage and contamination, external scarring and discoloration of the product, and bulb deformation.

The cabbage maggot is a specialist on cabbage, kale, radish, and turnip and all related crops. It also develops on some weeds and other wild plants in the mustard family. It sometimes attacks beets and celery. Maggots feed upon roots and tunnel into underground stems, causing stunting, discolored leaves, wilting, and aggravating root rot. Weakened cabbage, cauliflower, and broccoli plants fail to form heads. On root crops, discolored, debris-filled tunnels result in an unmarketable product.

Appearance: Root maggots are creamy yellow to white, 1/3 inch (8.5 mm) long when fully grown. The body tapers toward the head end, but lacks a distinct head and legs. The adults are slender, gray-bodied flies, about 1/4 inch (6.4 mm) in length, with black legs and clear wings; eyes are large and reddish purple. Pupae are enclosed within the hardened, darkened larval skins, called puparia that are oval, red-brown, 5/16 inch (7.9 mm) long. (Continued on next page)
Root Maggots (continued)

Life history: Root maggots overwinter as pupae in host plant debris or in the top 5 inches of soil near where the larvae developed. Certain wild crucifers, such as yellow rocket, are important resources for cabbage maggot population increase and are especially important for overwintering; when abundant, these wild plants may contribute substantially to infestations of spring crops. In the case of the onion maggot, wild plants do not support substantial pest populations. The timing and size of root maggot populations are highly variable and dependent upon weather conditions. Moderately moist (but not extremely wet) and cool conditions favor large pest populations and severe crop damage, particularly if serious root damage is followed by a prolonged period of hot, dry weather. Root maggots typically have three generations per year, with adults emerging during late April through May, late June through early July, and late August through late September. Eggs are deposited by female flies at the base of host plants or on the soil. Onion maggot flies preferentially lay eggs on damaged plants. Seed maggot flies are attracted to recently plowed soil and are stimulated to lay eggs by the presence of partially decayed organic matter in or on the soil and by germinating seeds; other species lay eggs on or near above-ground parts of their host plants. Seedcorn maggot eggs hatch in 1-11 days; most cabbage maggot eggs hatch in 3-5 days at 66-79F. Young maggot larvae seek underground seeds, roots, and stems or decaying organic matter on which to feed. Complete larval development requires 2-4 weeks. Maggots then enter a pupal stage that lasts 2-4 weeks.

Natural Enemies: Known predators of root maggots are ants, ground beetles, and rove beetles, which consume fly eggs, larvae, and/or pupae. Predatory mites also eat fly eggs. Adult flies are subject to attack by spiders, male dung flies, yellowjackets, some digger wasps, insect-eating birds, parasitic nematodes, and parasitic fungi. The beneficial fungus Entomophthora muscae is particularly important in killing flies during wet weather late in the growing season. Several species of parasitic wasp attack the larval and pupal stages of root maggots. Reduced tillage systems generally have higher levels of predator activity than conventionally tilled fields.

Management: Seed maggots can produce large numbers of larvae in soil prior to planting, thus growers need to be concerned about the impact of tillage practices and organic matter management on pest populations, as well as he interaction or tillage with time of planting. Cabbage and onion maggots are unlikely to be present in the soil before planting; infestations start by adult flies laying eggs at the base of young seedlings. The key to managing damage by these root maggots is to limit the number of adult flies that can gain access to the crop. Tillage for weed management and cover crop management can critically affect seed maggots. Seed maggot adults are attracted to recently disturbed soil and stimulated to lay eggs in soil with decaying organic matter, even prior to planting. Spring disking or, plowing and disking winter cover crops, can contribute to substantial increases in seed maggot damage to susceptible spring-planted crops. Plant material should be incorporated into the soil on a schedule that will reduce its availability to egg-laying adult flies. A general rule of thumb is to wait three weeks after incorporating plant matter into the soil before seeding or transplanting a crop. Crop residues can be incorporated into soil during hot or dry weather, or otherwise far enough ahead of planting to allow for the breakdown of the green material in the soil. Killing the cover crop with a herbicide prior to soil incorporation is less likely to favor buildup of seed maggot populations. No-till planting into cover crops has not been shown to increase the seedcorn maggot population or crop damage.

Good management of maggots also includes good sanitation of culls. Another cultural tactic that is helpful in maggot management is crop rotation. A mechanical tactic is physical barriers such as row covers. (Continued on next page)
Root Maggots (continued)

Chemical Control: Damage to seeds and seedlings can be reduced by use of insecticide-treated seed, or application of an insecticide at or before planting time, or by a foliar spray that targets the adult flies. Insecticide options are reviewed below, but be certain to read pesticide labels to ensure that legal applications are made.

Onion seed ordered with a commercial seed treatment of Trigard-OMC or FarMore FI-500 will not need any additional maggot control; these are allowed on dry onions but not on green onions. The commercial seed treatment Sepresto has been registered on green (bunching) onion since 2010. Sepresto is a mix of clothianidin and imidacloprid. A grower can contact his seed company and request that the seed be treated with Sepresto.

The only insecticides for use pre-plant broadcast treatment for maggot control are diazinon and Lorsban (chlorpyrifos). Lorsban generally works better than diazinon but there is concern that we might lose Lorsban in the near future. Lorsban can be used for root maggot control on dry bulb onions (not green onions), legumes, and Brassica including radish; it is also allowed for soil use on sweet corn, but root maggots are not listed as a target pest on this crop. Diazinon AG500 and AG600 are registered for control of root maggots on Brassica crops and onions; they are also allowed for soil use on radish, legumes, and cucurbits but root maggots are not listed as a target pest on these crops.

Insecticides for use in soil at-planting for root maggot control are Lorsban, Brigade 10 WSB, Capture LFR, and diazinon. Lorsban can be used on Brassicas, legumes, and dry bulb onions for maggot control; it is allowed for soil use on sweet corn but maggot is not listed as a target pest. Brigade 10 WSB contains bifenthrin and can be applied to soil in-furrow with seed or transplants for control of root maggots on legumes, Brassicas, and cucurbits. Note that Brigade 2EC is quite different than Brigade 10WSP; Brigade 2EC is for foliar use, not soil use, with the exception of sweet corn on which it can be used at planting. Capture LFR contains bifenthrin and can be applied to soil at-planting for control of root maggots on Brassicas, sweet corn, cucurbits, and legumes. Diazinon can be used as a transplant drench on Brassicas.

Many cucurbit growers use Admire Pro (imidacloprid) at planting for cucumber beetle control; although the Admire label does not list seedcorn maggot as a target pest, we have observed good control of seedcorn maggot in plots that were treated with Admire, adjacent to plots that were not treated with Admire that had heavy damage by seedcorn maggot. Admire is allowed for soil use on green and dry onions, radishes, Brassicas, and legumes but maggots are not listed as target pests on any of these crops.

Post-planting soil application with Lorsban is an option for radishes, turnips, and dry bulb onions, which are susceptible to serious damage after the root system is well developed. They can be protected by a high volume directed spray to kill newly emerged maggots after egg hatch. The pre-harvest interval is 30 days for Brassicas and 60 days for onions.

Foliar sprays of insecticide can be used to target the adult flies. The only labels that list root maggot adults as a target are Malathion and Mustang Maxx (zeta-cypermethrin), both on onions and radish. Warrior (lambda-cyhalothrin) has root maggot adults as a target but only on onion not radish. If adult flies are to be targeted, monitoring is needed to determine when each generation is most active. Sticky traps are used for this purpose as described in a fact sheet from Ontario: http://www.omafra.gov.on.ca/english/crops/facts/00-017.htm (Continued on next page)
Root Maggots (continued)

Beware that repeated application of the same insecticide over a period of several years has led to the development of insecticide resistance in some populations of onion and cabbage maggots for organophosphate insecticides, including diazinon and Lorsban. Continuous use of certain insecticides on the same land has also resulted in rapid microbial degradation of these pesticides in soil, rendering them ineffective against these and other pests. Growers should avoid unnecessary or excessive insecticide treatments, and attempt to alternate among several materials from unrelated chemical groups.

North Central Update

From Allen Gahler Extension Educator, Agriculture and Natural Resources, Sandusky County

Things are still moving very slowly in the Northwest and North Central part of the state with very little sun, highs in the 50s and occasionally low 60s over the last two weeks, and light but consistent rainfall events every 2-3 days. Approximately 10% of processing cabbage has been transplanted or direct seeded as of May 2. Many cabbage transplants are awaiting transplanting hardening off. Sweet corn growers who planted the week of April 18 – 22 have found some sprouted, but not emerged and in need heat. Concern is that continued cool and wet temps will lead to leafing out underground. One grower who planted at the end of March has sweet corn emerged and so far doing well. Currently, soil temps at the North Central Research Station at 2” are running 52-53 degrees F & 50-51 degrees F at 4” depth. Heavier clay soils have not seen much spring bedding progress, while lighter sandy soils have been prepped, as can be seen in the photos. The research station received .65 inches of rain on April 26, and 1.7 inches combined over the April 30 to May 1 weekend. The extended 10-day forecast is calling for more rain yet this week and next week with temperatures in the 60-70 degree F range and overnight lows averaging around 50 degrees F.

A. Processing cabbage transplanted the week of April 25 in Sandusky County. photo by Allen Gahler
B. Clay soils at NCARS and throughout the area remain saturated with little to no field work done beyond spraying pre-emergent herbicides. photo by Matt Hofelich
C. Sandy loam soils at NCARS and in Sandusky/Huron counties have been prepped and bedded for transplants. photo by Matt Hofelich
Southern Ohio Vegetable and Fruit Update May 5th

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

Rain, wet and muddy field conditions have been the norm the past week with little to no field work getting done except for daily asparagus harvest, plasticulture strawberry harvest, high tunnel tomato harvest, spraying fungicides on tree fruit, strawberries and grapes, spraying thinner on apples and spraying herbicides in orchards. Most areas reported rainfall every day the past week, with total amounts ranging from 1.7 to over 4 inches. Lows dipped to 38 degrees on Thursday morning (May 5) with some reports of light frost in the valleys. Highs in the Portsmouth area were in the mid 80’s last weekend.

Apples and peaches continue to be pruned with late apple varieties at full bloom and petal fall. Hop plantings are being fertigated, strings are being dropped and new bines are being trained. New plantings of hops are being hand-planted on beds made before the rains began and new high trellis hop systems are being installed. Deer fence continues to be repaired and new fence is being erected on several fruit and vegetable farms. Plasticulture strawberry harvest has begun throughout the area with very high quality and size. One farm near the Indiana line reported severe Botrytis infection where bloom sprays of fungicide were not applied, causing fruit quality problems at harvest. Matted-row strawberries are at full bloom and bloom fungicides are being applied between rainfall events. Fungicide applications are being made through aerial application on malting barley that is headed out, rust disease and snail damage is being reported in malting barley. Peas and tomatoes are being staked and the first strings are being applied. Floating row covers and hoops remain in place on field pepper and tomato plantings with cool nighttime temperatures in the high 30s and low 40s. (Continued on next page)

A. Plasticulture strawberry harvest is in full swing though ripening is slow with the cool weather. (photos by Brad Bergefurd, Thom Harker and Jones Produce)

B. Planting of new hop yards continues throughout Ohio. (photo by Brad Bergefurd)
Southern Ohio Vegetable and Fruit Update

C. Pre- and post-emergent herbicides continue to be applied in orchards and hop yards. (photo by Brad Bergefurd)

D. Thinning of apples and peaches continues. Here OSU student Emily Bauman assists with recording fruit size as a part of her Extension Education Early Field Experience program. (photos by Brad Bergefurd)

E. To eliminate the risk of soil-borne disease in continuous tunnel tomato crops, many farms are adopting bag or pot culture. (photos by Brad Bergefurd)

F. High tunnel tomato crops are looking good with light harvests reported. (photos by Brad Bergefurd)
Happenings at Hirzel Farms
From Jeff Unverferth, Hirzel Farms

Processing tomato transplants are on schedule and look great just waiting on Mother Nature to cooperate.
(photo by Jeff Unverferth, Hirzel Farms)

SUMMER tour & field day

SAVE THE DATE!
June 22, 2016

Quarry Hill Orchards
8403 Mason Rd
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Join us!
...in the field!
...at the tradeshow!
...with yummy food trucks!
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Established in 1931, Quarry Hill Orchards is a family-owned farm in the rolling hills of Berlin Heights, Ohio. At the heart of every Quarry Hill harvest lives a strong bond with the land and our customers. We’re passionate about cultivating quality fruit and meaningful relationships, inspiring people to enjoy fresh, wholesome tastes that spark engaging conversations and memorable experiences.
2016 VEGETABLE WORKSHOP SERIES

2nd Thursday, April - October

North Central Agricultural Research Station
1165 County Road 43
Fremont, OH 43420

Topics

April 14: New Fungicide Strategies with Orondis™, Sally Miller, Plant Pathology

May 12: Scouting Cucurbits with Drones, Jim Jasinski, OSU Extension

June 9: Alternative Crop Enterprises – Barley and Hops – Are They an Option for You?, Eric Stockinger, Horticulture and Crop Science

July 14: The OSU Food Safety Program – What It Can Do for You, Beth Scheckelhoff, OSU Extension

August 11: Sweet Corn Evaluation, Field Walk, and Taste It for Yourself, Mike Gastler, OSU Extension

September 8: Pepper Evaluation and Field Walk – Bells, Bananas, Jalapenos, Allen Gahler, OSU Extension

October 13: Soil Health and Water Quality – How Does It Affect Me? A Look at Edge of Field Studies and NCARS Water Samples, Libby Dayton, School of Environmental and Natural Resources

Please join us at the North Central Agricultural Research Station, Fremont, OH, the second Thursday beginning April 14 through October 13 for breakfast, industry updates, in-depth tips, tricks, and information from researchers to help make your 2016 growing season a profitable one! Attend when the topic suits you or take advantage of each month’s program

Registration
Free and open to the public

Bring your plant disease and insect samples to the OARDC Lab for identification and same day results, free of charge!

Free breakfast begins at 7 A.M. followed by the featured speaker, field walk and networking

For more information
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High Tunnel Integrated Pest Management Training
OSU Waterman Agricultural & Natural Resources Farm
Hosted by Brad Bergefur & OSU EIPM

June 1, 2016

Topics include:
High tunnel basic and advanced IPM techniques & tools, insect management and identification, plant grafting, disease management, anaerobic soil disinfestation for disease control, spotted wing drosophila management

High Tunnel Tour:
The tour will consist of OSU research facility tunnel, and various local farm locations.

Registration Deadline
Thursday, May 26, 2016
To register email Chanissa Gardner at Gardner.1148@osu.edu

Wittmeyer Conference Room
2490 Carmack Road
Columbus, Ohio 43221
For the agenda and more information go to
go.osu.edu/highertunneltraining2016

Cost: $35.00 per person*
*the cost includes: breakfast, lunch, snacks, educational handouts, tours of various tunnels, high tunnel manual, & flash drive with presentations

Space for participating in this training is very limited.
Strawberry Field Night
At OSU South Centers
Hosted by Brad Bergefurd

Wednesday,
May 25, 2016
5:30 — 8:30 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 Gardner at
Gardner.1148@osu.edu
740.289.2071 ext. 132

DEADLINE to Register:
May 23, 2016

For more information go to
http://go.osu.edu/strawberryfieldnight2016

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
- integrated Pest Management (IPM) techniques
- petiole sap analysis demonstration

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Extension Educator, Agriculture and Horticulture Specialist with Ohio State University Extension

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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Submit Articles:
To submit an article to the VegNet newsletter please send the article and any photos to Charissa Gardner at gardner.1148@osu.edu. For questions regarding the newsletter contact Brad Bergefurd at bergefurd.1@osu.edu or call 740.289.2071 ext.132

http://vegnet.osu.edu/newsletter