

OSU Extension - Auglaize County Weekly Horticulture Newsletter – 6-26-20

Squash bugs



Squash bugs are about to arrive. Squash bugs attack squash and pumpkins, but can also attack cucumbers. Adult squash bugs are dark grey to dark brown in color. The top of the squash bug is flat and measures about 5/8 inch long and 1/3 inch wide. They hide on the underside of the leaves and scatter very quickly when disturbed.

The adult lays yellow to bronze colored elliptical eggs that are 1/16 inch long in clusters of about 20 on the underside of leaves where veins connect with each other. The eggs hatch in about 10 days. The nymphs (young squash bugs) are greenish in color with black legs turning to a more greyish color over time. It takes about four to six weeks for the nymphs to turn into an adult.

The adults and nymphs have piercing sucking mouth parts so they suck sap out of leaves. The feeding causes yellow spots on the leaves that eventually turn brown. The feeding disrupts the flow of water and nutrients causing the leaves causing them to wilt. Young plants are much more susceptible to injury compared to larger plants. Plants can be killed with severe infestations.

One way to manage squash bugs is to remove the adults and nymphs by hand, placing them in a bucket of soapy water. Another non-chemical way to manage squash bugs is to constantly scout for eggs and destroy the eggs. The easiest way to get rid of adults and nymphs is to lay some boards or pieces of newspaper on the

ground near the plants at night. Go out early the next morning and lift up the boards or paper and destroy the squash bugs.

If the infestation is large, insecticides can be used to control squash bugs, but the adults are difficult to control. Apply insecticides when the bees are at their least activity, which is early morning or late in the day. Carbaryl, permethrin, befenthrin, and esfenvalerate will effectively control squash bugs.

Aphids



As the season progresses aphids will start to show up. They usually appear when plants are under stress. Aphids are small pear-shaped soft-bodied insects. They have piercing sucking mouth parts that remove fluid from plants and can transmit viruses. There are many species of aphids and they can be found on many different vegetable and fruit species.

Visible symptoms of aphid infestations include curled leaves, presence of ants, and a sticky substance on the leaves. Aphids live on the undersides of leaves and on stems. They can form dense populations on plants. During the growing season aphids bear their young alive, but in the fall they mate and lay eggs. Aphids produce many generations per year.

Aphids can be controlled by pruning off infected leaves or by washing the aphids off the plant. This is only successful when there are a few aphids present. Biological control is another option. Aphids have many

natural enemies such as lady beetles, lace wing, syrphid fly larvae, parasitic wasps, and fungi. Biological control is a viable option, but patience is required and artificial releases of beneficial insects may be needed.

Neem oil and insecticidal soaps can effectively reduce the aphid populations as long as thorough coverage is achieved and multiple applications are made. Insecticides will effectively manage aphids, but most beneficial insects will also be controlled. Effective insecticides include acetamiprid, bifenthrin, cyfluthrin, imidacloprid, and malathion.

Local Observations



Last patch of lettuce



Current stage of my carrots



Notice yellow spots of Moon and Stars



Current stage of my zucchini



Look a that large tomato



Look at the new shoot of asparagus



Daylily



Purple loosestrife



Common milkweed



Rose



Holly hock



Carnation



Holly hock rust (top of leaf)



Holly hock rust (bottom of leaf)

Good morning! I pray you are well.

Well some people received significant rain, while others did not! We received rainfall 2 days this past week! Rainfall on Sunday, June 21st ranged from 0.1" near Brown and Pusheta roads, Santa Fe-New Knoxville and Shelby-Fryburg roads, near Uniopolis, and near St. Rt. 117 and St. Rt. 67 to 0.55", and near Minster-Ft.

Recovery and Sommers roads. Rainfall for the week ranged from 0.27" near Santa Fe-New Knoxville and Shelby-Fryburg roads to 2.05" near Mercer Line and St. Rt. 197! The average rainfall for the week was 0.74", 0.45" more than last week. There is greater than a 50% chance of rain Sunday, Monday, and Tuesday, otherwise it will be dry!

A warmer, but overall cool week! The average high temperature now is 83 degrees F, just 1 degree higher than last week. We are approaching our maximum temperature! Temperatures were above normal for 2 day and below normal for 5 days this past week. Temperatures ranged from 73 degrees F to 90 degrees F. The average high temperature for the week was 81.3 degrees F which is 4 degrees F warmer than last week and 1.7 degrees F cooler than the historical average high. Temperatures will be above normal most of the week!

What a difference some rain makes!! The vine crops really grew a bunch this week!! I planted the some green beans Thursday night to have a later patch. Everything is healthy and looking great, except the tomatoes went backwards this past week for some reason. My new asparagus patch is doing well also with new shoots emerging this week. It looks like I will have around 10 of the 16 sweet potato plants make it!! They sure are hardy. I picked a few peas at the end of the week. I will have more soon. The green beans are flowering and looking good. I can't believe the lettuce is ready to harvest already. It is cool to what things change on a daily or multiple day basis.

Flowers are looking spectacular with many species flowering.

Weekly Weed Photos



Large crabgrass



Velvetleaf



Yellow nutsedge



Venice mallow

Special OSU Horticulture Meetings

Horticulture Lunch and Learn and Horticulture Happy Hour

During this period of COVID-19 OSU Extension is offering a Horticulture Lunch and Learn Program and a Horticulture Happy Hour Program. If you are interested, visit the following web address: <http://go.osu.edu/MGVlearn> The Lunch and Learn occurs every Tuesday and Thursday from noon to 1:00 PM and the Happy Hour is Wednesdays from 4:00 to 5:00 PM.

VegNet

Insect observations

June 27₂₀₂₀

A few **Japanese beetles** were sighted today on a peach tree in Columbus. Late June is the usual time that this pest begins to emerge. Beware that large congregations might be seen on their preferred crops over the next few weeks. Japanese beetle is a pest of sweet corn, snap beans, raspberries, grapes, plum, peaches, blueberries, and hops as well as ornamental plants such as roses and linden trees and sassafras, and weeds such as smartweed. This pest can be more readily controlled by insecticides if the spray is made when the congregations are just beginning to form. Insecticides that are very effective for control of Japanese beetle are old ones: carbaryl (Sevin) and pyrethrins plus PBO (EverGreen Pro).

True armyworm is active in corn fields and grassy areas. We previously reported a large surge in the number of armyworm moths caught in our blacklight trap in Columbus between 5/14 and 5/18, with a record of 210 moths in one night on 5/14. We have been seeing increased numbers of moths during the past week, including today when there were 96 armyworm moths in the trap. There have been reports of armyworm larvae being found in field corn fields around Ohio. Daily counts of armyworm and several other common moths in blacklight traps are posted

here: <https://docs.google.com/spreadsheets/d/10gh3rHahdxLKkXQapGyEPxWsjHYRmgsezOoFHnwtYEO/edit#gid=1114468121>

Squash vine borer is now active, and abundant at our research farm in Columbus. Its adult is a day-flying moth that will be laying eggs on zucchini and other summer squash, winter squash (except butternut), pumpkins, and gourds over the next few weeks. It generally is a severe problem in home gardens and in small plantings, but less severe in large fields. Insecticide can be effective if directed to the base of the main stem before eggs have hatched, usually at least 2 or 3 sprays at 10-day intervals. Insecticides used for its control are pyrethroids such as Asana (esfenvalerate), Pounce (permethrin), Warrior (lambda-cyhalothrin), MustangMaxx (zeta-cypermethrin), or Brigade (bifenthrin); it is usually not well controlled by Sevin (carbaryl). We have found that EverGreen Pro (pyrethrins plus PBO) is effective although squash vine borer is not listed as a target pest on its label. This year we have a field trial in progress to evaluate the non-chemical tactic of a border trap crop of unharvested zucchini.

Corn earworm has been active for the past few weeks but at low numbers, which is typical of this pest in Ohio in early summer in most years. We have not seen the surge in moth activity like we did last year in late May and early June. A pheromone trap is highly effective at detecting the presence of the moth. Farms with early planted sweet corn should have their trap out as soon as tassels are emerging. Information on using traps is available here: <https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/1/8311/files/2014/12/CornTrapInstructions2009-u47rp3.pdf> Information on buying traps to monitor corn earworm is here: <https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/1/8311/files/2019/07/TrapSpecsAndSources2019.pdf> . Trap counts from several Ohio locations are posted here: <https://docs.google.com/spreadsheets/d/10gh3rHahdxLkKXQapGyEPxWsjHYRmgsezOoFHnwtYeo/edit#gid=0>

Potato leafhopper is active and being reported from beans, potatoes, apples, and hops. The adults and nymphs of this pest are found on leaf undersides where they suck sap. Their feeding results in yellowing then browning along the edge of leaves, a symptom known as ‘hopperburn’. Leafhoppers can be controlled by sprays of a neonicotinoid such as Admire (imidacloprid) or Assail (acetamiprid), or a pyrethroid such as Pounce (permethrin), Warrior (lambda-cyhalothrin), MustangMaxx (zeta-cypermethrin), Brigade (bifenthrin), or by dimethoate.

Brown marmorated stink bug is active now. Our traps are catching only adult stink bugs so far, but a few young nymphs have been seen on host plants. This year we are continuing our investigations of the samurai wasp, which is a tiny parasitoid that specializes in killing the eggs of this stink bug. We have a colony of the samurai wasp at OSU, and we have made releases of it at ten Ohio fruit farms, in comparison with 10 Ohio fruit farms where we did not make a release. We are currently sampling those 20 farms to see if the samurai wasp has become established.

Spotted lanternfly: This invasive exotic pest has NOT yet been found in Ohio, but many people are on the lookout for it, especially in eastern Ohio, because it has been spreading from its initial infestation in eastern Pennsylvania. Its favorite host plant is the tree of heaven but it can cause damage to grapes, hops, blueberries, and other fruit crops, mostly in late summer.

-Celeste Welty, Extension Entomologist

Managing Cucurbit Powdery Mildew

June 27 2020



Powdery mildew colonies on the lower leaf surface.

Powdery mildew has begun to appear on pumpkins and other cucurbits in Ohio. Signs of infection are small circular powdery growths on either side of the leaf. These spots enlarge and can eventually cover most of the leaf surface and kill the leaves. Stems and leaf petioles are also susceptible, but the disease is not observed on fruit. In pumpkins, powdery mildew may also attack

the “handles”, which can be further damaged by secondary pathogens. **It is time to start scouting cucurbits for powdery mildew.**

Powdery mildew is managed using disease-resistant varieties and fungicides. Pumpkin and squash varieties vary in resistance to powdery mildew; in general, the more susceptible the variety, the more fungicide needed. The choice of fungicide is important because insensitivity to overused fungicides is common. It is critical that a fungicide resistance management program is followed. Alternate fungicides in different FRAC (Fungicide Resistance Action Committee) groups, indicating different modes of action against the fungus. Fungicide applications should begin when the disease first appears and incidence is low. Fungicides that are labeled for use against cucurbit powdery mildew can be found in the [Midwest Vegetable Production Guide for Commercial Growers](#); product ratings and FRAC codes are on page 129. Vivando (U8), Quintec and fungicides containing FRAC 3 group active ingredients (Aprovia Top, Inspire Super, Luna Experience, Procure, Rally) have fewer reported failures due to fungicide resistance than others listed in the Guide and are recommended for Ohio (see table below – click to enlarge). These products should be tank-mixed with a protectant fungicide such as chlorothalanyl (Bravo and similar products), copper- or sulfur-based products.

Our evaluations of efficacy of powdery mildew fungicides in Ohio in 2018 indicated that Inspire Super, Procure, Rally, Aprovia Top and Quintec provided very good control of powdery mildew on pumpkins in three locations. Bravo Weather Stik and Fontelis provided moderate control and Pristine, Merivon Xemium and Torino provided poor control.

Fungicide	FRAC code	PHI (days)	Efficacy	Labeled cucurbits
Aprovia Top	3+7	0	Good	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Bravo Weather Stik	M5	0	Fair	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Fontelis	7	1	Fair	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Inspire Super	3+9	7	Good	Cantaloupe/muskmelon, cucumber, watermelon
Luna Experience	3+7	7	Good	Cantaloupe/muskmelon
Microthiol Dispers (sulfur)	M2	0	Good	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Miravis Prime	7+12	7	Fair	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Procure	3	0	Good	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Quintec	13	3	Good	Cantaloupe/muskmelon, pumpkin, squash, watermelon
Rally	3	0	Good	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon
Vivando	U8	0	Good	Cantaloupe/muskmelon, cucumber, pumpkin, squash, watermelon

A list of products for powdery mildew management in **organic cucurbits** prepared by Dr. Meg McGrath of Cornell University can be found [here](#).

Spotted Wing Drosophila Back in Action

June 26₂₀₂₀

As expected, Covid-19 has slowed many things in Ohio but one of them is NOT spotted wing Drosophila! Ohio State University Extension, the Department of Entomology, and the IPM Program have again set up a statewide SWD monitoring program for this pest in 11 counties. The Scentry lure baited traps were deployed the week of June 15, and the first trap checks for positive male or female SWD occurred this week.



SWD trap.

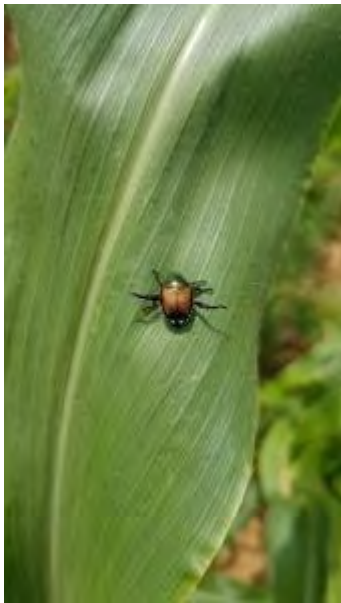
As of Friday June 26, three counties reported positive identifications of SWD; Champaign, Greene and Franklin. Other counties are likely positive but have not been reported as of yet. Recall that the threshold for this pest is one fly, which triggers an insecticide spray program if the berries are ripening or ripe through harvest. Details on spray programs can be found here: https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/1/8311/files/2019/11/SWD_Ohio_handoutV19.pdf

If you have ripe berries and have not been spraying, your chance of infestation is still likely low but you may consider looking for larvae in the fruit using a salt water test. The process is fairly simple and can be found here: <https://youtu.be/MtMXHxqcSVs>. While on the OSU IPM YouTube site look around at our other SWD videos if interested in identification, trap set up and deployment or exclusion netting.

Wayne County IPM Scouting Notes from June 15 – June 19

June 23₂₀₂₀

Wayne County IPM Notes
(From the Week of June 15 – June 19)
Frank Becker, IPM Program Coordinator
OSU Extension Wayne County
Vegetable Pests



Japanese Beetle on corn, F. Becker photo

This week I began seeing Japanese Beetles, specifically in sweet corn. These beetles are generalist feeders and will do damage to most any crop. Keep an eye out for the beetles and the defoliation that they can cause. [More Info](#)

Flea Beetles are doing damage to a lot of younger transplants. Flea Beetles will utilize weeds as host plants. Keeping your fields free from weeds will help to reduce the populations of flea beetles.

Cucumber Beetles are high in numbers right now. Cucumber Beetles vector the Bacterial Wilt disease so early season control of the beetles is vital to the long-term health of the plant. Also note that as your plants are blooming, the beetles may be in the blossoms. In small enough numbers, they are not detrimental, but they can also damage the fruit from feeding on the blossom and interfering with pollination. Consider the pollinators when planning out treatment options for cucumber beetle.

European Corn Borer moths are out. A trap this week in Wayne County picked up 14 moths. ECB will do damage to both peppers and sweet corn.

Onions are at a point where thrips populations could begin to increase. Consistent rains and small plants had kept the thrips population down, but with onions increasing in size and putting on more leaves, this will be a pest to watch in the next few weeks.

The Imported Cabbageworm larvae, among other worm pests of brassicas, are feeding on cole crops and leafy greens such as kale. Severe foliar feeding could stunt the plant growth or significantly reduce yield.

Vegetable Diseases

Timber rot is still being found, mostly in high tunnel tomatoes. Botrytis is still being seen too, as is blossom end rot. To manage blossom end rot, it is important to limit moisture stress on a plant, from either too much or not enough moisture. Being consistent in watering and monitoring soil moisture conditions will help to prevent exposing the plant to moisture stress. Proper moisture will also provide conducive conditions for adequate nutrient uptake, given that the nutrients are present at appropriate levels in the soil.

Botrytis is also being seen in onions. This disease is primarily affecting the foliage but can impact the integrity of the bulb if left uncontrolled. Find out more about management of onion diseases here: [Growing Onions](#)

Some of the field peppers I am scouting showed signs of damping off. Damping off is caused by soil borne fungi such as Rhizoctonia, Pythium, Fusarium and Phytophthora.

Fruit Pests



Japanese Beetles, left untreated, feeding on young apples, F. Becker photo

With finding Japanese Beetles this week, I would encourage fruit growers to keep a close eye on their trees and small fruit plants. Grapes especially can be a target of the Japanese Beetle and can be defoliated very rapidly. This kind of damage can be detrimental to the yield of the crop. Japanese Beetles will also do damage to the fruit, as seen in the photo to the right, taken in 2019.

SWD traps are out and we will start getting an idea of population numbers within the next week.

Codling Moth and Oriental Fruit Moth traps counts were low but starting to tick up. This week will be an important week in determining the next generation of moths. More on Codling Moth management and additional information from Celeste Welty: [Codling Moth](#)

Fruit Diseases

Now is the time to be managing early season diseases in apples. Scab, rust and powdery mildew are the three main diseases of concern at this point in the season. It may also be appropriate to start considering managing summer diseases such as flyspeck, sooty blotch, and fruit rots.

Strawberry leaf diseases may appear unsightly right now, however, now is not the time to be managing these leaf diseases. Once harvest is done and during patch renovation it is recommended that you address these concerns, either with a fungicide or with resistant plant varieties. This is also a critical time to be watching for fruit rots such as Botrytis.

Cucumber Downy Mildew Confirmed in Michigan

June 22₂₀₂₀

Cucumber downy mildew was found today in Berrien County in southwest Michigan. This is the first report of cucurbit downy mildew this year in the Great Lakes region. The pathogen was detected in spore traps in Berrien County June 8, 10, and 13, and in Muskegon County on June 8. Dr. Mary Hausbeck has provided details of the outbreak and a link to the spore trap data [here](#).



This is relatively early for cucumber downy mildew in Michigan and Ohio – we often see it around the 4th of July and last year it appeared weeks later. Humid, rainy, cool to warm weather favors this disease. It is likely that downy mildew will be in Ohio soon, especially the northern counties, if it is not already here. Cucumber growers in the northern third of the state should begin a downy mildew fungicide program immediately. Dr. Hausbeck [recommends](#) a rotation of the following fungicides tanked mixed with chlorothalanil or mancozeb: Ranman, Elumin, Zampro, Previcur Flex, or Orondis Opti (no need to tank mix Orondis Opti since it is a premix with chlorothalanil). Make sure to check the labels for use restrictions and preharvest intervals (PHIs).

The Michigan recommendations are based on 2019 field evaluations of these fungicides. Our Ohio bioassay evaluations in 2019 had similar results, although we did not test Previcur Flex.

You can follow reporting of cucurbit downy mildew outbreaks in the US on the [CDM ipmPIPE website](#). This website was revamped this year and if you want to receive alerts of downy mildew outbreaks you will need to [sign up](#), even if you had signed up on the previous website.

If you think you have downy mildew in cucumbers or other cucurbits on your farm or in your home garden, you can send samples to the OSU Vegetable Pathology Lab for a [free diagnosis](#).

Septoria Leaf Spot of Tomatoes is Here

June 20₂₀₂₀

Septoria leaf spot has been found in Ohio this week, perhaps not surprisingly due to frequent heavy rains in many areas. Dr. Francesca Rotondo, vegetable disease diagnostician and research associate in the OSU



Vegetable Pathology Lab, [texted me this photo](#) taken today in her home garden. This excellent photo is diagnostic for Septoria leaf spot: round tan to brown spots on the leaves and leaf yellowing. In the more mature spots, margins are dark brown and small round black dots can be seen in them through a hand lens or the lens of your smartphone camera. The tiny black dots are called pycnidia, the fruiting bodies of this fungus. Pycnidia are flask-shaped with a small hole at the top, and partially submerged in leaf tissue. Pycnidia contain large numbers of spores held in a gelatinous matrix; when humidity is high or free water is on the leaf surface, the spores ooze out of the pycnidia like toothpaste being squeezed out of a tube. The spores are dispersed by rain or irrigation water to other leaves on the same plant and to other nearby tomato plants.

Septoria lycopersici is seedborne and also survives at least 1-2 years in soil. Septoria leaf spot is favored by moderate temperatures, high humidity and rain or overhead irrigation. While *Septoria* does not cause spots on tomato fruit, it can rapidly defoliate the plant. If this happens early the plant is likely to die. Later on, defoliation leads to small fruit, poor ripening and problems with sunscald. Even large, previously healthy, vigorous plants can be completely defoliated.

Commercial growers can manage Septoria leaf spot by including a strobilurin fungicide such as Quadris or Cabrio in a fungicide program that also includes a protectant such as chlorothalanyl or mancozeb. A list of labeled fungicides to manage Septoria leaf spot can be found in the [Midwest Vegetable Production Guide for Commercial Growers](#). **Cultural practices** to minimize Septoria leaf spot should be undertaken, including crop rotation of 3 years or more, planting tomatoes on raised beds, using adequate spacing, using drip irrigation, pruning foliage to allow good air movement through the canopy, and removing diseased plants from the field. Septoria leaf spot is rarely a problem in high tunnels, greenhouses and other structures that protect plants from rain.

Organic growers need to follow the cultural practices described above and may consider growing tomatoes in protected culture. Copper-based fungicides formulated for organic production can suppress disease development if applied soon after initial symptoms appear.

Home gardeners should adopt the cultural practices described above and should also remove and destroy leaves with symptoms. This is really only effective when symptoms first appear. Always avoid the foliage when watering plants. Fungicides containing chlorothalanyl or copper can be applied to slow disease spread.

BYGL

I did not include all of this week's articles in this newsletter. To see all of them go here: <https://bygl.osu.edu/>

Turfgrass Times, 06.26.2020

Authors

Amy Stone

Published on

June 27, 2020



Check out this week's Turfgrass Times - covering a little bit of everything turfgrass!

Participants this week included: Dr. David Gardner; Dr. Ed Nangle; and Dr. Dave Shetlar (aka the Bug Doc). This week's recording includes dormant turfgrass - do I water or let it go dormant, turfgrass diseases, and insect update including Japanese beetles and European chafers.

Here is the link for the timely video: <https://youtu.be/MrCtbeQiHH0>

Thanks to the OSU Turfgrass Times for this timely information.

More Information

Buckeye Turf

<https://buckeyeturf.osu.edu/>

Woolly Alder Aphids

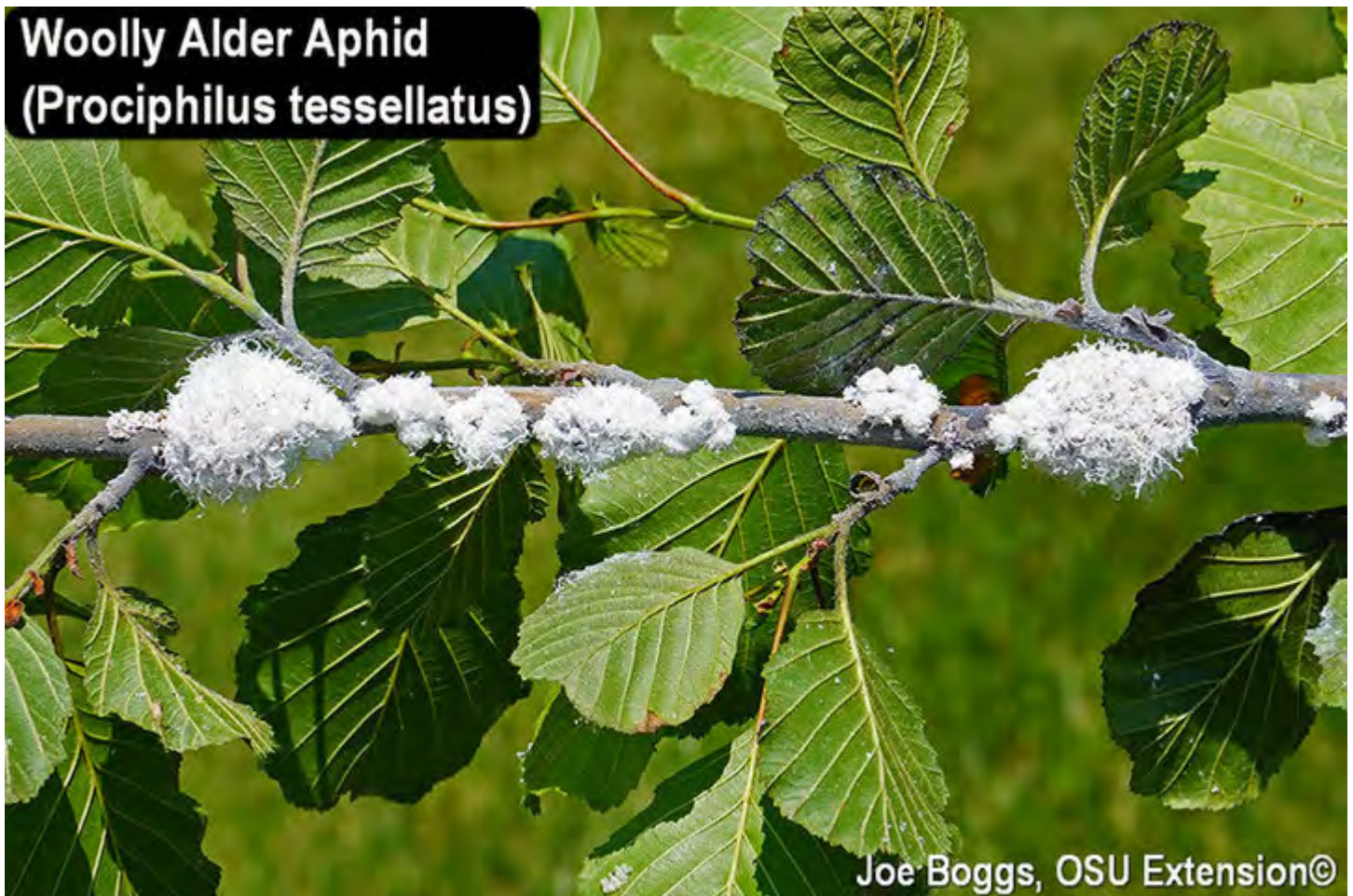
Authors

Joe Boggs

Jim Chatfield

Published on

June 25, 2020



Woolly Alder Aphids (*Prociphilus tessellatus*, family Aphididae) produce large, white fluffy colonies on the branches of their namesake host (*Alnus* spp.). Their appearance is variously described as looking like white pom-poms, cotton candy, or white hair covering alder branches.

**Woolly Alder Aphid
(*Prociphilus tessellatus*)**



Joe Boggs, OSU Extension©



A close look will reveal that woolly aphid nymphs exude strands of white waxy filaments from block-like structures on their backs (*tessellatus* means "mosaic pattern"). I recently encountered these unusual woolly aphids in a landscape in southwest Ohio and Jim Chatfield has been observing them in the northeast part of the state.

Woolly Alder Aphid
Early Colony Development

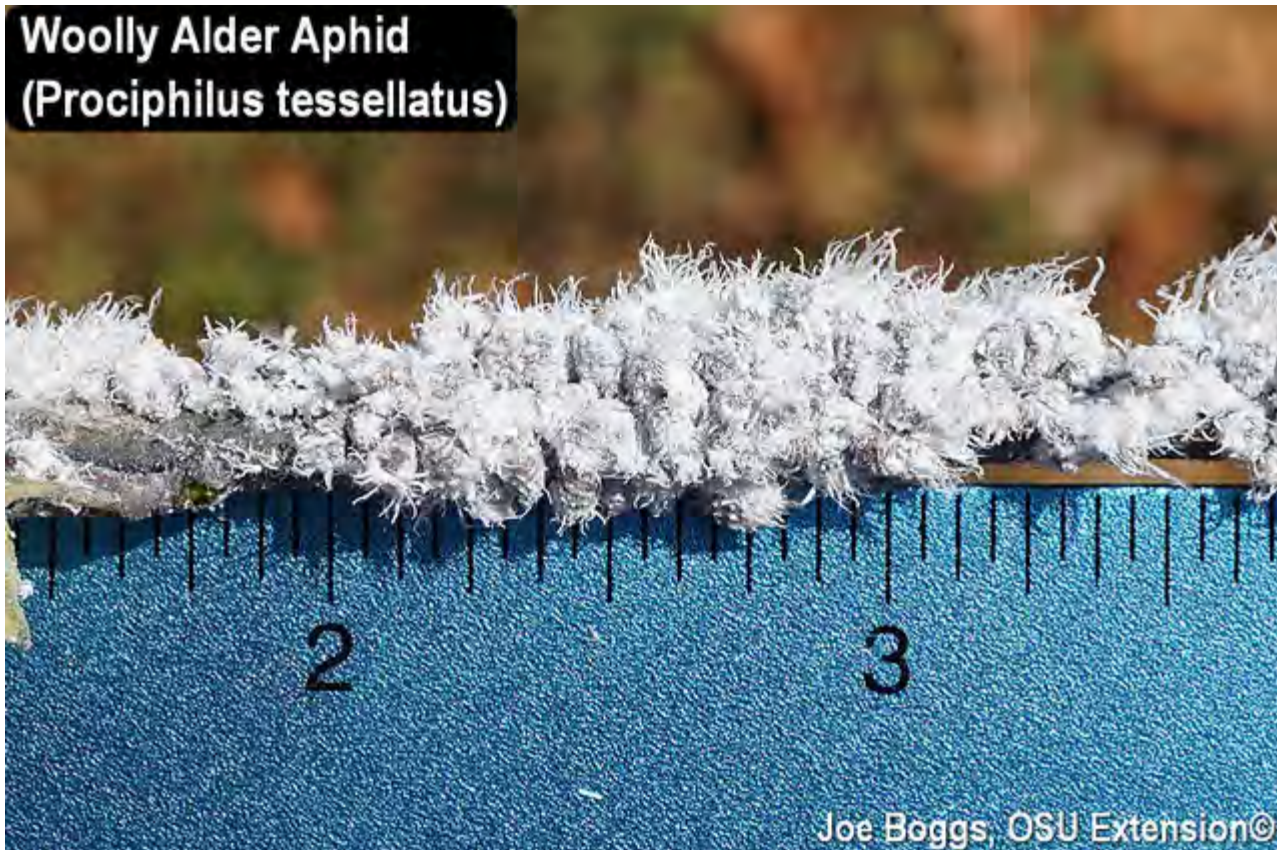


Joe Boggs, OSU Extension©

**Woolly Alder Aphid
(*Prociphilus tessellatus*)**



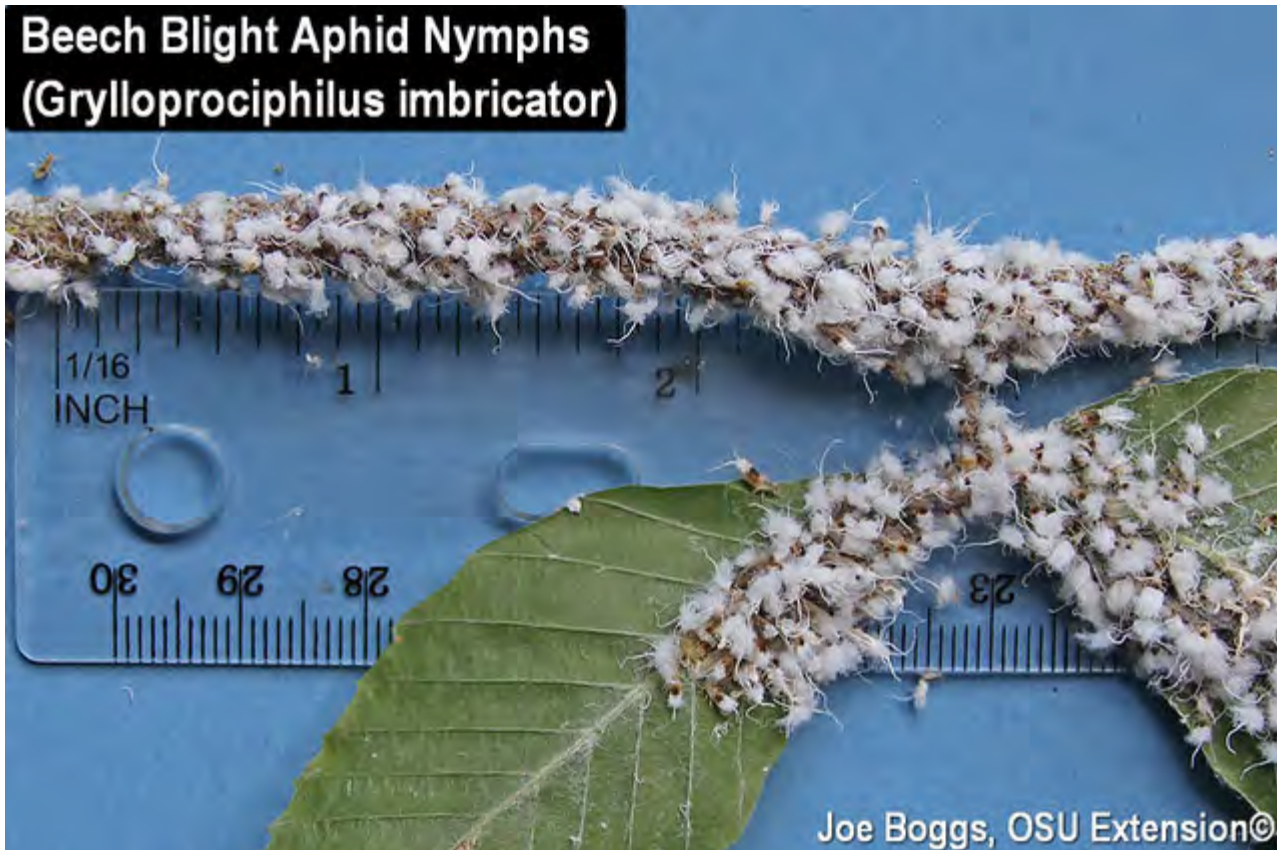
Joe Boggs, OSU Extension©



Woolly alder aphids closely resemble Beech Blight Aphids (*Grylloprociphilus imbricator*) which are found exclusively on the twigs and branches of American beech (*Fagus grandifolia*). Indeed, both aphids belong to the same subfamily, Eriosomatinae (woolly and gall-making aphids), and the same tribe, Pemphigini.

Beech blight aphids practice an unusual defense behavior. When disturbed, they pulse their posterior ends in unison which is responsible for the alternate common name, "boogie-woogie aphids." They have great entertainment value!

**Beech Blight Aphid Nymphs
(*Grylloprociphilus imbricator*)**



Beech Blight Aphid Nymphs (*Grylloprociphilus imbricator*)



Unlike their beech-sucking cousins, woolly alder aphids don't pulse their posterior ends when disturbed. They just remain clustered tightly together like a flock of sheep presumably relying on safety in numbers. Of course, this means a few will end up on someone's plate every now and then, but more about that later.

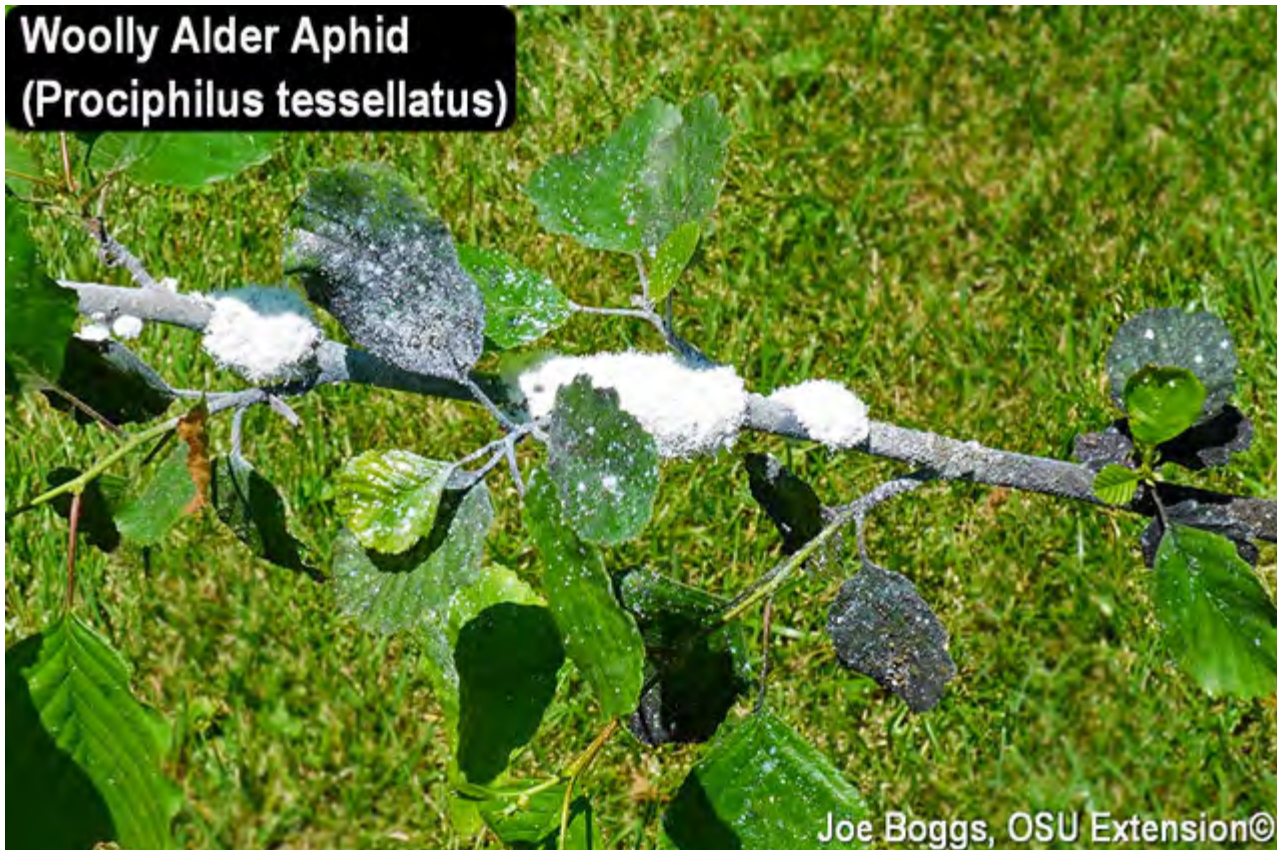


Woolly alder and beech blight aphids both practice the same phloem-sucking behavior and both produce copious quantities of honeydew which becomes colonized by a specific sooty mold fungus, *Scorias spongiosa* (Ascomycete). The fungus has an obligate relationship with these and a few other woolly aphids.



The sooty mold fungus looks like other black sooty molds at the beginning. The mycelia form a dense, black, "fuzzy" mat on top of the honeydew.





Over time, the fungus progresses into a growth phase that is totally unlike most sooty molds; it produces a spongy, golden-yellow heap that may rise 1 - 2" or more above the leaf or twig surface. The odd-looking fungal growths look like nothing else that would commonly be associated with aphids or honeydew.



The spongy growths eventually harden and turn black in the fall. They remain evident throughout the winter and are sometimes mistaken for other tree maladies.

Woolly Alder Aphids or Maple Blight Aphids?

Woolly alder aphids have two tree hosts: alders and silver maple (*Acer saccharinum*). In fact, the alternate common name for this aphid is Maple Blight Aphid.

Toward the end of this season, some of the aphids on alder will mature into males and females with wings and fly to silver maple. Others remain on alder for the winter. Indeed, a portion of the colony will always stay on alder year-after-year. Given the time of the year, size of the colonies, and accumulation of sooty mold, I believe Jim and I are seeing colonies that did not migrate from silver maples.

If the aphids do migrate to silver maples, the females lay eggs in bark crevices on silver maples; this is the overwintering stage. The eggs hatch in the spring and the resulting nymphs migrate to newly expanding maple leaves where they line-up on midveins and use their piercing-sucking mouthparts to tap into phloem vessels.

These aphids are all females and they reproduce asexually to form large, fluffy colonies. Heavy infestations can cause noticeable leaf curling and the colonies produce copious quantities of honeydew that rains down on leaves, branches, etc. to become colonized by black sooty molds

By mid-summer, the colonies of "maple blight aphids" produce adults with wings that fly to alders. These relatively large aphids are covered in waxy filaments and look like flying puffballs. They are not particularly good flyers and large numbers can make them a serious nuisance pest as they drift around landscapes with heavily infested maples.

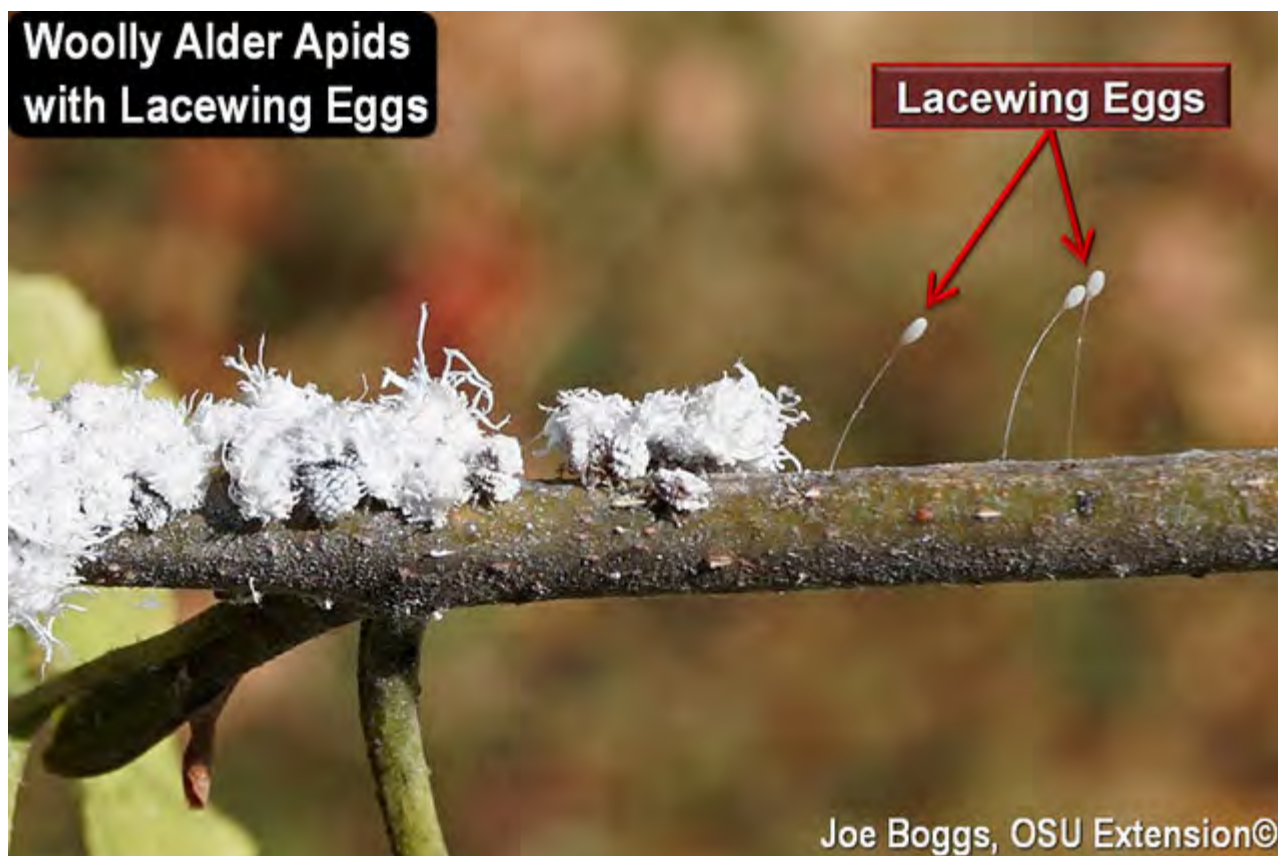
Maple Blight Aphid Flies to Alder



Joe Boggs, OSU Extension©

Woolly alder aphids/maple blight aphids mainly affect the aesthetics of their tree hosts. Heavy honeydew production can make them a nuisance, but they cause little to no harm to the overall health of infested trees so insecticide applications are not warranted.

The aphids attract a wide range of predators and parasitoids that play a significant role in naturally regulating populations. It's common to find lady beetles (family Coccinellidae) feasting on the bouquets of aphids. The characteristic eggs of predaceous lacewings (family Chrysopidae) are harbingers of doom for the aphids.



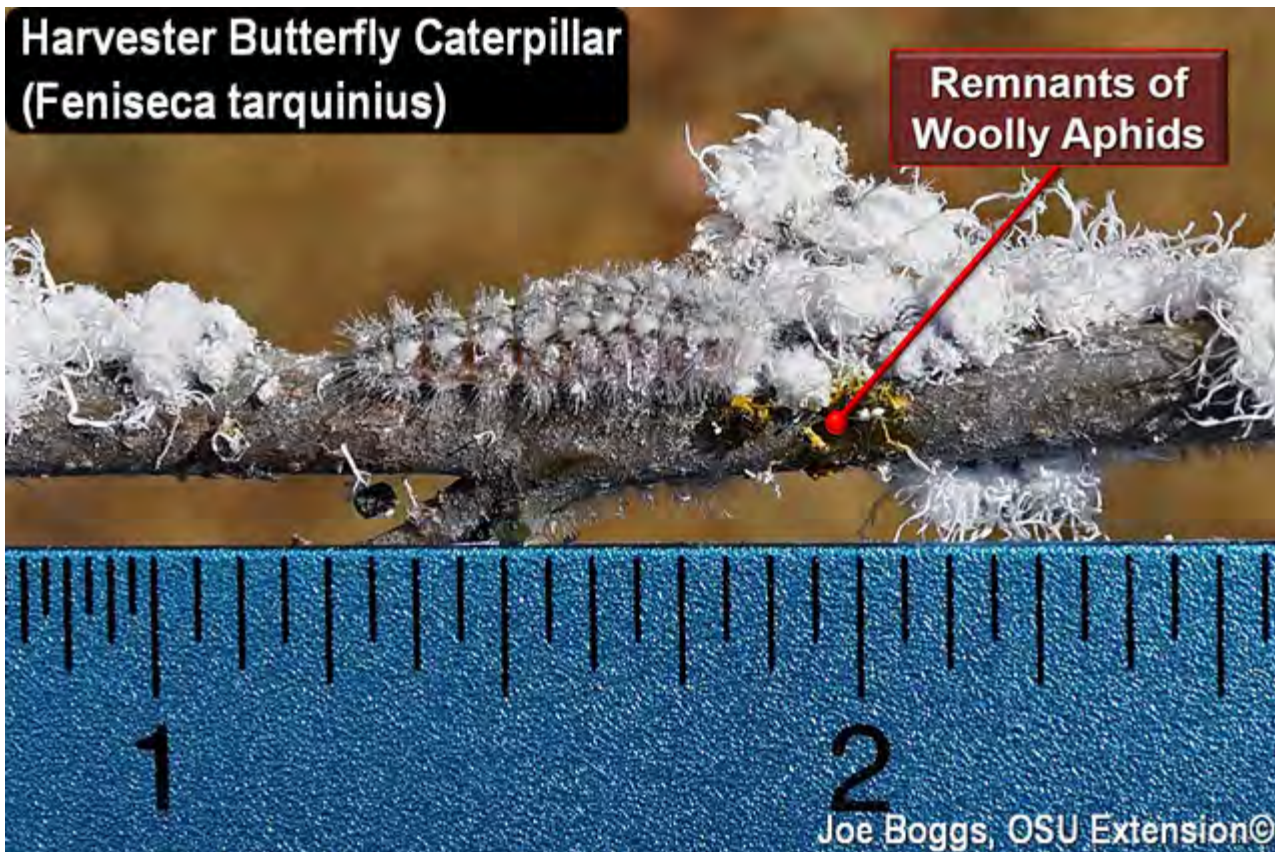


A Harvester of Woolly Aphids

Woolly alder aphids may also attract one of the most unusual caterpillars found in Ohio. Late last season, I came across the slug-like caterpillars of the Harvester Butterfly (*Feniseca tarquinius*, family Lycaenidae) chowing down on alder aphids. This is the only strictly meat-eating butterfly caterpillar found in the U.S. The butterfly species is also the only member of the monotypic genus *Feniseca*.



I was amazed to see the carnivorous caterpillars slinking among their woolly prey without producing any reaction from the aphids. The sheep-like aphids seemed totally unaware of the marauding wolves converting their sisters into watery, yellowish smears.



Harvester butterfly caterpillars commonly feed in groups (wolfpacks?) and apparently confine their feeding to woolly aphids. You may also find the caterpillars creeping among colonies of other woolly aphids such as the Woolly Elm Aphids (*Eriosoma americanum*). The adult butterflies may be spotted fluttering in close proximity to their woolly caterpillar food.

However, the harvester butterfly does not seem to hunt beech blight aphids. Research has shown that the nymphs are highly aggressive against predators. If the organized boogie-woogie doesn't work, the nymphs will mass-attack using their piercing-sucking mouthparts to inflict serious damage to predators; possibly including harvester caterpillars. Perhaps the aphid's gyrations are actually a war dance!

Tree of Heaven and Sumac Blooming: A PERFECT Time to Differentiate!

Authors

[Thomas deHaas](#)

[Amy Stone](#)

Published on

June 24, 2020



Tree of Heaven (*Ailanthus altissima*)



and Staghorn Sumac (*Rhus typhina*)



can look pretty similar.



Sumac on left

Tree of Heaven on Right

However, when they flower, it's easy to tell them apart.
Staghorn sumac has a yellow-green drupe fruit now (Late June)



that will eventually turn red (Late July).



Tree of Heaven has a white cluster of flowers now (Late June)



that will eventually become a cluster of seeds that can range from red to tan (Late July).



You may be asking the question "Why does it matter?"



Sumac Tree



Tree of Heaven

Well it really matters to the Spotted Lanternfly! They LOVE Tree of Heaven!

With that said, we are encouraging individuals to report Tree of Heaven trees using the Great Lakes Early Detection Network (GLEDN) - <https://apps.bugwood.org/apps/gledn/> The app is available for free for android and apple phones / devices. You can also visit those trees on a regular basis throughout the summer and fall looking for the Spotted Lanternfly (SLF). You can make a negative report if you don't see any signs or symptoms of the SLF. We are proactively looking for this invasive species that has not yet been detected in Ohio, but populations have been identified in western Pennsylvania, not too far from the Buckeye State.

Squash Vine Borer Adults

Authors

Amy Stone

Curtis E. Young

Published on

June 24, 2020



Everyday in Extension, questions come in through our offices via telephone calls, emails, samples and/or photos. Ohioans seeking information turn to Extension as a source of research based information on a variety of topics. Here are some questions that BYGL writers commonly field across the state:

- What is this plant?

- What are these insects?
- What is happening in my garden?
- Should I be concerned about this damage on my tree?
- Why is the turfgrass turning brown?
- Should I test my soil?

The list of questions can go on and on. We are grateful that Ohioans are "Leaning on Their Land Grant" and seeking the answers from an unbiased source who wants to empower and engage residents through these educational opportunities.

While some questions can be answered and information provided at the local level, some questions require additional input from others with a certain speciality recognized across the state, or the assistance of OSU's Plant and Pest Diagnostic Clinic (PPDC). It is important to understand that some questions, might not have a clear-cut answer, or could have several possible answers. And some times, the answer isn't what the clientele may want to hear.

Yesterday, I received a couple photos from a client and friend who observed and was able to capture some images of a couple insects in her perennial garden. The insects where just hanging out. While the photos were IDed by Curtis Young, I began to wonder if one resident was curious to know what the insects were, could there be others searching out the same information. Or if sharing the information via BYGL might just arm Ohioans with information and they will recognize the insect the next time they see it in the landscape or more importantly in their vegetable garden where this insect is a pest.

So what is it you ask?

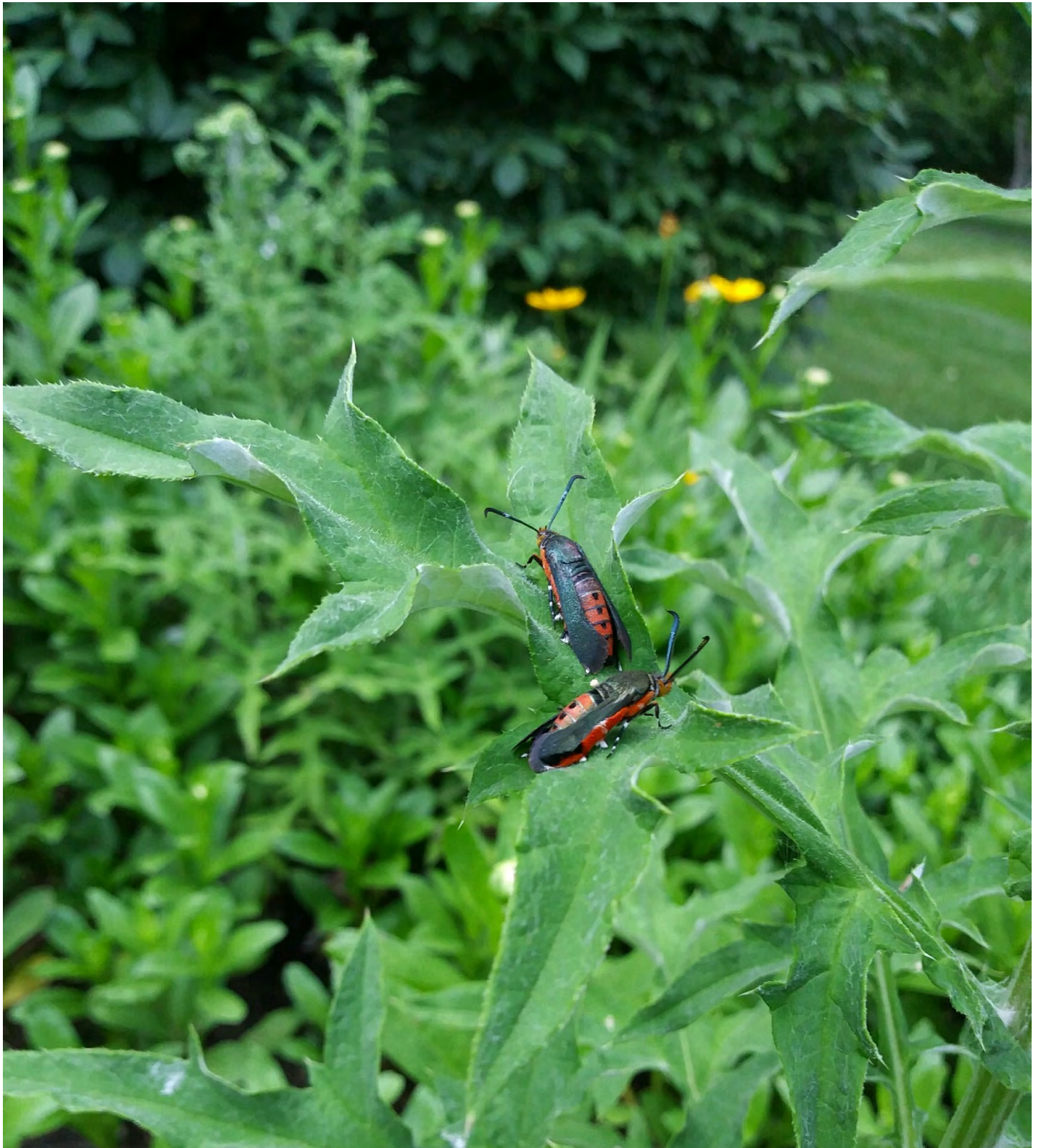


Photo Credit, Margie Black

The insects captured in the photos above are adult stage of the squash vine borer (*Melittia satyriniformis*). This insect is a significant pest of squash and pumpkins, but can be problematic to cucurbits and melons as well.

The insect overwinters as a pupa, typically emerging as adults in mid-to-late June. The black and orange to red moths will lay eggs throughout July and August. The eggs are oviposited individually or in small groups on the stem of the host plant just above the ground surface. The eggs can take up to a week to 10 days to hatch. After hatching, the larvae enter the stem of the host plant, leaving a small hole surrounded by frass - a telltale sign. The larvae will feed while tunneling through the plant stems for about one month. This injury will cause wilting or sudden collapse of the leaves where the feeding occurs. Once the feeding is complete and they are ready to pupate, the larvae will burrow into the soil and spin a cocoon. They will remain in the soil until the following June.

It seems once you have experienced the not so joyful encounter with SVB, the field or garden may be more likely to have problems in the future. When infestations are identified early and damage is minimal, plants can recover by carefully removing the larvae. I have friend and colleague who has become an expert at carefully cutting the stem, removing the insect, and doing a squash vine borer squish - whew! She had plenty of experience as she worked with community gardeners in gardens across Toledo earlier in her career, and now in her own garden.

For additional information about the "insect-extraction" process, and additional cultural controls to add to your management tool box, check out the Squash Vine Borer FactSheet from Penn State University below. It was a great surprise to see a photo taken by Jim Jasinski with OSU as part of their FactSheet. Go buckeyes!

Let us know if you are seeing adult SVB activity, or have faced the challenge of this pest in your garden or field. Hopefully the timing of this alert you make you more alert to this boring insect.

More Information

Penn State FactSheet, Squash Vine Borer
<https://extension.psu.edu/squash-vine-borer>
OSU Plant and Pest Diagnostic Clinic
<https://ppdc.osu.edu/>

Orange "Dust" from Callery Pears

Authors

Joe Boggs
Jim Chatfield

Published on
June 23, 2020



Homeowners in southwest Ohio were surprised yesterday to awake to find sidewalks, cars, and streets beneath Callery pears (*Pyrus calleryana*) covered in a fine sprinkling of orange dust. The unusual event spawned rampant speculation on social media and captured the attention of the local news media.



The source of the orange patina appears to be *Gymnosporangium clavipes*; the cedar-quince rust fungus. The "orange dust" is actually the spores of the fungus and the source are tube-like structures, called aecia, which are sprouting from the fruits and to a lesser extent, the stems of infected Callery pears.





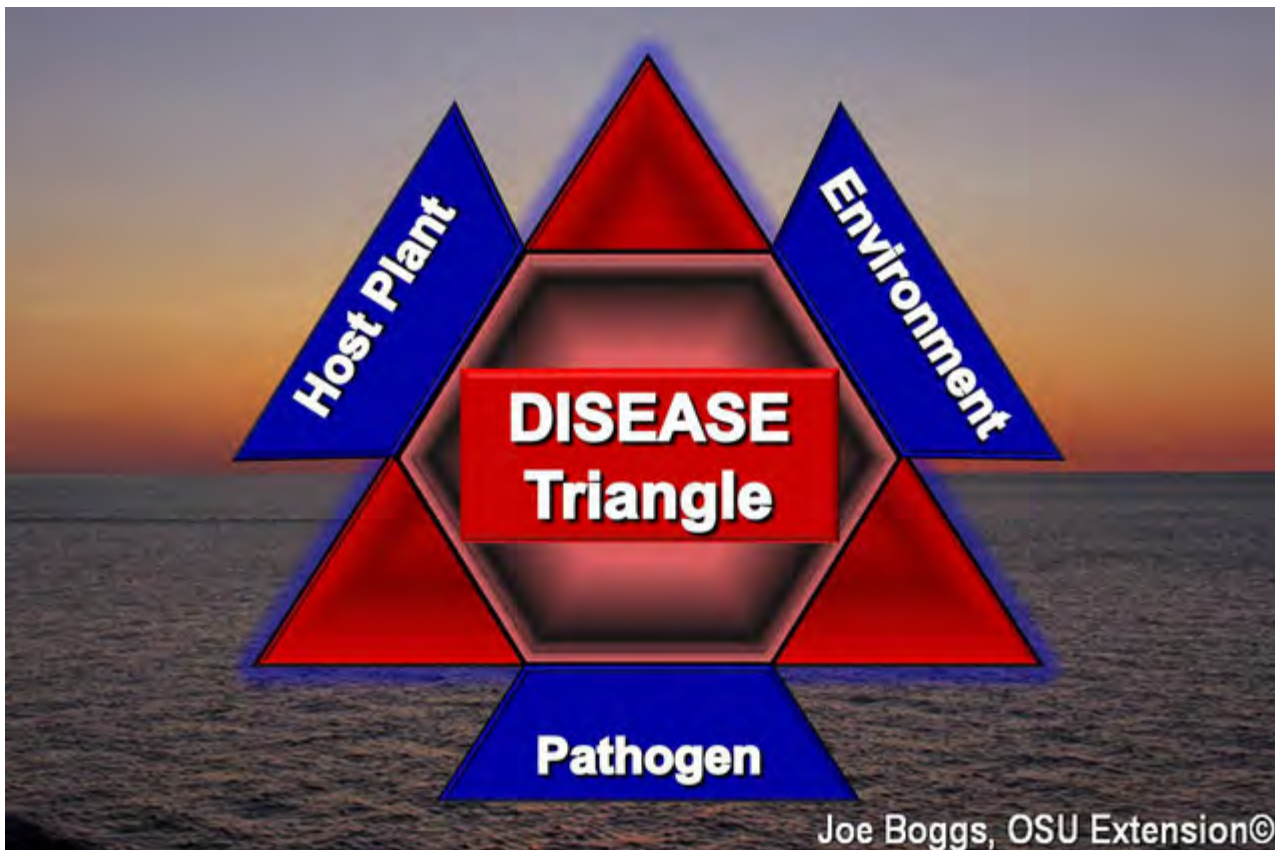


Fruit infections cause no harm to the overall health of infected trees. Although the stem infections may cause minor tip dieback, the damage is usually inconsequential to tree health. The rain of orange is generally considered to be an aesthetic issue; however, affected homeowners may have a different perspective.



The Triangular View

Plant pathologists developed the Disease Triangle to graphically illustrate the three conditions that must be present *at the same time* for a plant disease to develop. Viewed from a management perspective, the Triangle is helpful with showing that by removing any one of the three components, disease development can be prevented.



So, what happened in southwest Ohio? How did all of the components of the Disease Triangle come together to spawn the perfect storm behind orange spores raining down on streets, sidewalks, and parked cars?

The cedar-quince rust fungus must **alternate between hosts** belonging to two widely divergent taxonomic groups of plants in order to complete both portions of its life cycle. One portion of the cedar-quince rust fungus' life cycle involves a member of the *Juniperus* genus. It's often Eastern Red Cedar (*J. virginiana*) which accounts for the "cedar" in the disease name.



If **environmental conditions** are supportive of infection, the fungal **pathogen** produces twig cankers and spores on the *Juniperus* **host**. The cankers are both noticeable and potentially damaging by disrupting vascular flow to cause twig dieback.





The rusty-orange colored fungal spores of the fungal **pathogen** that arise from the cankers will drift on the wind to initiate the other portion of this fungus' life cycle. If the spores land on another juniper, or on oaks, maples, pines, gardeners, etc. nothing happens except perhaps for sneezing in the case of gardeners. That's because these hosts are *not susceptible* to infections by the cedar-quince rust fungus; no disease can develop.

However, many **host plants** belonging to the rose family (Rosaceae) are *susceptible* to infections by the cedar-quince rust fungus. Common quince (*Cydonia oblonga*) and flowering quince (*Chaenomeles* spp.) are possible rosaceous hosts, thus the "quince" in the disease name. However, there are many other rose hosts with junipers serving as the middleman. In fact, according to Sinclair and Lyon in their 2nd edition of *Diseases of Trees and Shrubs*, "Rosaceous hosts include more than 480 species in 11 genera."

Callery pears belong to the rose family, so they can be **susceptible hosts** to the cedar-quince rust fungus. However, not all parts of rosaceous hosts are susceptible to infection by this fungus. The cedar-quince rust fungus doesn't invade the stems to wreak havoc on the vascular system nor does it infect the roots to

produce root rots. It does infect the fruit meaning that the greater the number of fruits, the greater the level of infection.



There was a time when Callery pears rarely produced fruits. Indeed, this valued trait meant Callery pears would not spread beyond the bounds of their plantings. Of course, that has changed dramatically in recent years with heavy fruit production making the trees pariahs (peariahs?). The story is presented in the BYGL Alert title, "Callery Pear: the Jekyll and Hyde Tree" that was posted earlier this season.

You can read the Alert by clicking on this hotlink:
<https://bygl.osu.edu/index.php/node/1476>

As you can see with the images in this Alert, the pears were loaded with fruit providing a massive target for infection. Consequently, all three sides of the Disease Triangle were satisfied this spring. Spores (= the **pathogen**) wafted from nearby junipers to land on a rosaceous plant (= **susceptible host**); more specifically

the spores landed on developing Callery pear fruit. Presumably, **environmental conditions** conducive to infection were present. Had any one of these three conditions not been met, this Alert would not be necessary.





On a side note, hawthorns (*Crataegus* spp.) are also members of the rose family and are a common host for the cedar-quince rust fungus in Ohio. BYGL Alerts highlighting "rusty hawthorns" or "hairy hawthorn haws" have been annual postings for years. Of course, hawthorns have not been used nearly as frequently in Ohio landscapes compared to Callery pears.



Finally, there is nothing you can do to limit this disease in 2020; the rust-colored die is already cast.

Other Articles

Tips for Harvesting Basil, Chives and Other Herbs

NIKI JABBOUR

JUN 24, 2020

- Source: <https://www.hortmag.com/edible-gardening/harvest-herbs>

Many gardeners hesitate to harvest from their herbs, worried that it will slow the growth of their plants. Best for most herbs, the opposite is true. The more you harvest, the more you get. Don't be shy about using your homegrown herbs.



Once the plants are growing well in early to midsummer, harvest regularly by pinching or snipping stems and branches. Harvest no more than one-third of the plant at any one time, unless it's the end of the season and you wish to dry or freeze the entire harvest.

Here are some specific tips for commonly grown herbs:

Basil: Pinch stems back to a pair of leaves. This encourages fresh growth and dense branching. Keep an eye out for flower buds, removing them as they form to promote plenty of fresh vegetative growth.

Oregano: I use this fresh in spring and summer and I dry it for autumn and winter use. This low-growing woody shrub produces small branches up to a foot long. Clip these with a sharp pair of pruners, leaving several inches at the base of the plant to send out fresh growth.

Chives: You can start harvesting fresh chives once the leaves emerge in early spring by clipping bunches of the foliage. Once the flowers form in late spring, try to avoid snipping their stems when you harvest more leaves. The flower stems are edible, but they have a tough, woody texture. The flowers are edible, too.

Rosemary: If you only need a small amount, you can pick individual leaves. For a larger amount, cut several inches off the stem tips. But remember, remove no more than one-third of the plant.

Prepared by Jeff Stachler
Ohio State University
Agriculture and Natural Resources Extension Educator, Auglaize County