

OSU Extension - Auglaize County Weekly Horticulture Newsletter – 11-1-19

How to Control Mice



Now that grain harvest is nearly complete and many gardens have been cleaned up for the winter, food supplies for mice have greatly diminished. In addition it has gotten cold causing mice to seek warmer shelter. Therefore mice are starting to move indoors to find warmth and food.

Mice are nocturnal animals making it difficult to see them on a regular basis. The most obvious indicators of the presence of mice include the presence of droppings, sounds of them running, gnawing or squeaking, or damage to stored food and materials for nesting. Mice feed in short distances (a maximum of only 10-25 feet) from their nest. When food and shelter are adequate, they may only feed a few feet from the nest. Mice prefer to travel adjacent to walls and other edges. Mice are inquisitive and will investigate new objects placed in their feeding area. Mice have keen senses of taste, hearing, smell, and touch. Mice are prolific breeders, producing 6 to 10 litters throughout the year. Mice are more common and cause more damage than rats. Mice can transmit diseases such as salmonellosis (bacterial food poisoning). For these reasons it is important to manage mice as quickly as possible.

Mice feed on a variety of foods, but prefer cereal grains and other seeds. They also like to eat foods high in fat and protein such as nuts, bacon, butter, and sweets. Mice nibble on their food making 20-30 visits to food sites a night.

Preventing mice from coming into the house and reducing nesting sites are the first strategies to managing mice. Seal all openings especially those $\frac{1}{4}$ inch or greater in size to prevent mice from entering the house. Baits (rodenticides) and traps are the only strategies to managing mice once you have them. Place rodenticides next to walls behind objects and in secluded areas out of the reach of children and pets. The two

major down falls to using rodenticides are safety to children and pets and the smell of dead mice in secluded areas. There are two types of rodenticides, single-dose and multiple-dose. A single-dose rodenticide will kill a mouse a few days later after just a single bite. Single-dose products are more harmful to humans and pets and should only be used by professional pest control operators. Multiple-dose products are usually an anticoagulant and require the mice to feed multiple times over a few days. The most effective form of a rodenticide is an extruded block. Mice can carry pellets from one area to another area that may not be secured from children or pets.

There are three types of traps, snap, multiple-catch (Ketch-All), and glue boards. A snap trap with a wide trigger is more effective than a small trigger. Place traps along walls behind objects or in secluded areas where you have seen the evidence of mice or near bait. Place a snap trap perpendicular to the wall and place a multiple catch trap parallel to the wall. Baiting a trap with food such as peanut butter, gum drop, bacon, or raisins can improve the chances of capturing the mice. Once a trap is set and nothing is caught in a few days move the trap to another area.

Electronic sound devices do not work at keeping mice away as they quickly become familiar to the sounds the devices emit. Also ultrasonic sounds are directional and do not penetrate behind objects.

Local Observations

Fall foliage from the Great Wall of China this past week

Good Evening! I pray you are well! What a weather week!

It rained only one day this past week. Rainfall on Saturday, November 2nd, ranged from 0.” at about 3 miles north of St. Marys, my house south of St. Marys, and near Kossuth to 0.025” at Buckland – Holden west of St. Rt. 501. Rainfall for the week was what we had for Saturday. The average for the week was 0.01”, a far cry from last week. Temperatures were mostly below normal this past week, although a few days were above normal at the beginning of the week.

I tried to check the bees, but thought it was too cold to check them. At this time there are bees that are present, but I do not know how many. Need to look further at them.

VegNet

Pumpkin and Squash Hybrid Trial Results via Video

October 31, 2019

Interest in pumpkins and squash peaks today on Halloween and slowly fades as we head toward Thanksgiving. While thoughts of cucurbits are still fresh in your head, take a few minutes to watch the results of our 2019 pumpkin and squash hybrid trial at the Western Ag Research Station in South

Charleston.



In keeping with the principles of IPM, most of the hybrids selected have tolerance to powdery mildew, which allows for a healthier less diseased plant through the growing season. This is not to say these hybrids can go without protection from fungicides for the whole season, as there are many diseases that attack the foliage and fruit, but sprays can be delayed or have longer intervals without significant damage to the plants.

The trial consists of 27 hybrids from Harris Seeds, Harris Moran, Rupp, Johnny's, and Siegers. Fruit size ranges from small to extra large, and colors include orange, white, blue, and pink; some even have bumps and warts. Estimates of average fruit weight and fruit number per plot are given during the narration. Hopefully you see something worth trying in 2020!

Detailed Commercial Review: <https://youtu.be/s-xCgqgyYOI>

Shorter Consumer Friendly Version: <https://youtu.be/HJCSgrp59WY>

These videos were partially shot and edited with the help of Brooke Beam, Highland County Extension Educator.

BYGL

See You at the 2019 Ohio State University Green Industry Short Course

Authors

Amy Stone

Published on

November 5, 2019



The **2019 Ohio State University Green Industry Short Course** is just 4 weeks away. The Short Course will be held on December 3, 4 and 5 at the Columbus Convention Center in collaboration with the **Ohio Turfgrass Foundation (OTF) Conference and Show**. Participants will need register through OTF and can attend educational sessions at both the Short Course and the OTF Conference. It is like two programs in one!

It is a great opportunity to earn continuing education credits, pesticide recertification credits and network with other professionals in the green industry.

The OSU Green Industry Short Course will include two educational tracks, a *Landscape Pest Track* and a *Plants and Practices Track*, Tuesday - Thursday.

In addition to the *Landscape Pest Track* and the *Plants and Practices Track*, participants can also attend sessions from the following tracks:

- *Sports Field Management*
- *Professional Lawn Care*
- *General Pesticide*
- *Equipment Maintenance*
- *Golf Turf Management*

There is truly something for everyone!

Do you want to take a peak at all the classes that you can attend? Check out conference preview: https://cdn.ymaws.com/ohioturfgrass.org/resource/resmgr/conference_and_show/2019/2019_otf_conference_preview.pdf

Registration information can be found on the OTF website. Here is a link to a registration form that can be printed and mailed in https://cdn.ymaws.com/ohioturfgrass.org/resource/resmgr/conference_and_show/2019/otf_cs_registration_page.pdf or you can register online at: <https://ohioturfgrass.org/event/2019OTFConference>

More Information

Ohio Turfgrass Foundation
<https://ohioturfgrass.org/>

Boogie-Woogie Aphids are Still Dancing

Authors

Joe Boggs

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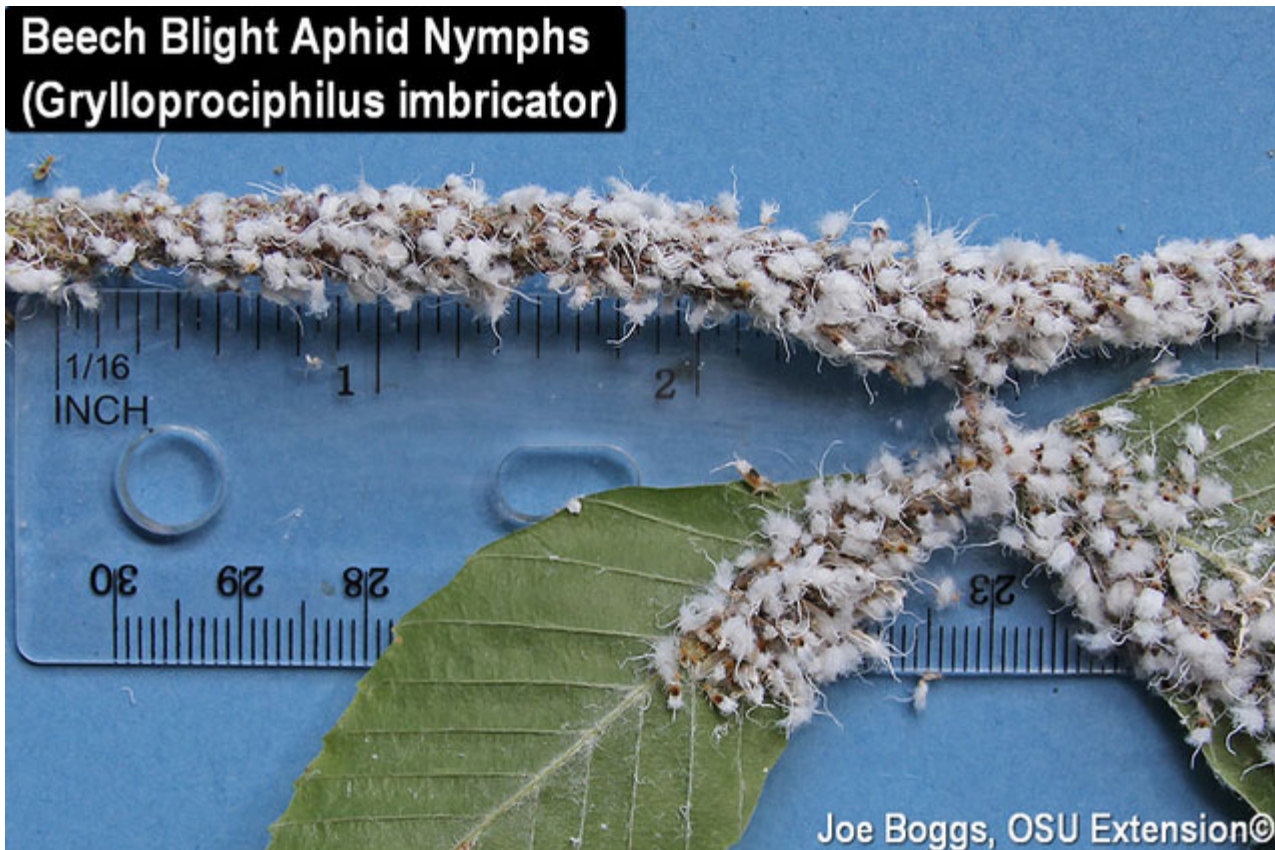
I was surprised over the weekend to come across a horde of Beech Blight Aphid (*Grylloprociphilus imbricator*) nymphs on their namesake host in southwest Ohio. This aphid spends the winter in the egg stage and I had assumed they had completed their seasonal development.

Beech blight aphid nymphs exude tufts of white, wool-like filaments from their posterior ends. Large numbers of these native aphids gather together in prominent groups that are commonly called "colonies" on the twigs and branches of American beech. The colonies appear as masses of white, fluffy material adorning the twig and branches of their namesake host.

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



Joe Boggs, OSU Extension©



When disturbed, the entire colony will pulse their woolly derrieres in unison in what appears to be a synchronous samba. This peculiar behavior has earned the aphid the alternate common name of the "boogie-woogie aphid." I believe no other insect upstages beech blight aphids in entertainment value. To see what I mean, just Google "boogie-woogie aphid" to watch several YouTube videos.

An Aggressive Aphid

It is speculated that the mass-wiggling of beech blight aphids distracts or dissuade predators and parasitoids from focusing on single individuals. Although I could find no published research where this defense theory was tested with this aphid, the collective motion of prey to lower the targeting success of predators has been documented with other animals.

On the other hand, research has been published showing beech blight aphid nymphs practice another far more unusual type of defense strategy. The nymphs are highly aggressive against predators and will mass-attack using their piercing-sucking mouthparts to inflict serious damage to their assailants.



This is uncommon for aphids. In my teaching presentations, I sometimes compare aphids to other herbivores like wildebeests to drive home certain points regarding predator/prey relationships. However, imagine the upside-down Syfy world presented by wildebeests swarming over lions on the Serengeti.

Harvester Butterfly (*Feniseca tarquinius*, family Lycaenidae) caterpillars also invoke a similar inverted order to things. They are the only strictly meat-eating butterfly caterpillar found in the U.S. I posted an Alert about these predacious caterpillars a few weeks ago after observing them snarfing Woolly Alder Aphids (*Prociphilus tessellatus*) [see *White-Haired Alders and Meat-Eating Caterpillars*, October 14, 2019].



Harvester butterfly caterpillar may also be found creeping among colonies of other woolly aphids such as the Woolly Elm Aphids (*Eriosoma americanum*). However, the carnivorous caterpillars do not appear to hunt beech blight aphids. Perhaps the blight aphid's gyrations are a war dance!

You can read more about this fascinating stabbing behavior of beech blight aphids by clicking on the hotlinks beneath the publication titles below:

Dancing Woolly Aphids Will Probably Stab You

<https://blogs.scientificamerican.com/running-ponies/dancing-woolly-aphids-will-probably-stab-you/>

*Colony Defense by Wingpadded Nymphs in *Grylloprociphilus imbricator* (Hemiptera: Aphididae)*

https://www.researchgate.net/publication/270225177_Colony_Defense_by_Wingpadded_Nymphs_in_Grylloprociphilus_imbricator_Hemiptera_Aphididae

Primary and Secondary Hosts

I've always written in past BYGL reports that this aphid is only found on the twigs and branches of American beech. While it's true that these aphids do not infest non-native beeches, this is only part of the host story.



According to the literature, beech blight aphids may also be found on Baldcypress (*Taxodium distichum*); however, they are not seen feeding in colonies on twigs and branches. A study on the life history of this aphid that was published in 1984 in *Florida Entomologist* reported that both wingless (apterous) and winged (alate) asexual (viviparae) beech blight aphids have been documented feeding on the roots of baldcypress.



The study noted that the aphids can remain on baldcypress and are not required to spend part of their life cycle on American beech, or vice versa. However, American beech is still considered the primary host and baldcypress the secondary host for this native aphid.

Host Impacts and Moldy Matters

Despite their sinister-sounding name and penchant for appearing in large white masses, beech blight aphids cause little to no harm to the overall health of their beech host. I could find no studies investigating the impact of root-feeding on baldcypress.

Thus far, there also appears to be no link between this aphid and the enigmatic "beech leaf disease" (BLD). I've taken pictures of both together which could cause the casual observer to link the disease symptoms to the aphids. However, beech blight aphids are commonly found where BLD has never been reported.





The most obvious impact of the aphids is associated with their prolific production of honeydew. Even though the aphids are usually confined to just a few branches, it is common for sidewalks, parked cars, outdoor furniture, etc., beneath their gatherings to become covered in sticky goo. Indeed, aphid colonies are sometimes discovered by observing circular or semi-circular spots of sticky honeydew on hard surfaces beneath infested trees.

The sooty mold fungus, *Scorias spongiosa* (Ascomycete), has an obligate relationship with honeydew produced by beech blight aphids as well as a few other woolly aphids including the aforementioned woolly alder aphid which is also known as such as the maple blight aphid owing to its alternate host.



The fungal growth of the sooty mold begins like most sooty mold fungi; it grows as a dense, black, "fuzzy" mat on top of the honeydew. However, over time, the mat thickens into a brownish, furry mass.





The fungus then progresses into a growth phase that is 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. It may also attract yellowjackets and baldfaced hornets in search of a sugary meal.



**Beech Blight Aphid Sooty Mold
with Eastern Yellowjacket**



Joe Boggs, OSU Extension©



The fungus will grow anywhere that woolly aphid honeydew is deposited which may present a diagnostic challenge. It is common for thick fungal accretions to appear on the leaves and stems of understory plants that are not hosts to the aphids. During the winter, the fungal accretions turn coal-black and may remain evident through much of next season. The black masses are sometimes mistaken for more serious plant problems such as Black Knot fungal galls that occur on members of the *Prunus* genus.

**Beech Blight Aphid Sooty Mold
Accretions the Following Spring**



Joe Boggs, OSU Extension©



Other Articles

Project FeederWatch Begins in Early November

November 5, 2019 | [Meghan Shinn](#)

Source: <https://www.hortmag.com/weekly-tips/project-feederwatch-begins-in-early-november>



Back-yard birdwatchers can help the scientists at Cornell University track the movements of North America's birds every winter by participating in Project FeederWatch. This 21-week-long program begins the second Saturday in November each year. (That's November 9 in 2019.) Participants simply count the number of birds of each species at their feeders over a two-day period each week (or less often) and record their findings online. There's a small fee to join, but this covers most of Cornell's costs of running the program, and FeederWatchers receive a Research Kit that includes several resources.

Scientists use the data submitted through Project FeederWatch to track long-term trends in bird populations and movements.

To learn more and sign up, see <http://www.feederwatch.org>. (It is still possible to sign up after the program begins.)

World's first true red spinach variety released

Source: <https://www.hortidaily.com/article/9160911/world-s-first-true-red-spinach-variety-released/>

USDA Red, the world's first true red spinach variety has been developed and released by the Agricultural Research Service.



Spinach has always been known as a green leafy vegetable. There are leafy vegetables often called red spinach. But these are actually red-leaf amaranths (*Amaranthus* spp.) or other plants such as Red Goosefoot (*Blitum rubrum*), not true spinach (*Spinacia oleracea*). There are currently some true "red" spinaches on the market, but the red color is limited to the veins of the leaves. The red-veined spinach variety Bordeaux is a parent of USDA Red.

Spinach consumption (and production) in the United States dropped from 2.3 pounds per person to 1.6 pounds in 2006 following an *Escherichia coli* outbreak in 2006, and it has never fully recovered.

"A true red spinach like USDA Red will bring excitement to the spinach market and could help attract people back to eating spinach. It can be used as baby or "teen" leaf in salad bags, as bunched products, and in spring mixes for fresh-market consumption. The red color in spring mixes is currently provided by red lettuce, radicchio or chard. Red spinach will give processors another choice," said ARS research geneticist Beiquan Mou, who developed the new variety. Mou is with the Crop Improvement and Protection Research Unit in Salinas, California. USDA Red spinach also works frozen or canned.

Spinach is one of the most desirable leafy vegetables with high levels of beta-carotene (provitamin A), lutein, folate, vitamin C, calcium, iron, phosphorus, and potassium.

The red color of USDA Red comes from the phytonutrient betacyanin rather than the more common anthocyanin. Betacyanin is a potent antioxidant that has been shown to significantly reduce oxidative stress in patients and may even help in preventing chronic pathologies, inflammation, and cancer, according to the scientific literature.

The antioxidant capacity of USDA Red was 42–53 percent higher than other spinach cultivars in five tests conducted over three years.

"Betacyanin adds another benefit to a plant already loaded with phytonutrients, making spinach a true "super food,"" Mou added.

USDA Red is a semi-flat type of spinach with a medium growth rate and semi-erect leaves. Its leaves are spade-shaped with round-pointed tips and purple-red veins and petioles. Compared with other spinach varieties, it has moderate resistance to bolting.

ARS has applied for a Plant Variety Protection certificate for USDA Red and the agency is seeking a partner to license production of seeds for the market.

"Ultimately, consumers will benefit from having access to new vegetable products that are exciting and good for them," Mou said. This new variety is the result of traditional breeding.

The Agricultural Research Service is the U.S. Department of Agriculture's chief scientific in-house research agency. Daily, ARS focuses on solutions to agricultural problems affecting America. Each dollar invested in agricultural research results in \$20 of economic impact.

Syngenta presents Yoom, the new "umami" tomato

Source: <https://www.hortidaily.com/article/9157408/syngenta-presents-yoom-the-new-umami-tomato/>

Syngenta, the biotechnology company specialized in seed production and crop protection, has launched the Yoom tomato; a new product with umami flavor, the so-called "fifth flavor", because it is neither sweet, nor salty, nor bitter, nor sour. "It stimulates the whole mouth," says David Bodas, head of development of projects with horticultural seeds at Syngenta.

Yoom is a purple tomato that has a high beta-carotene and anthocyanin content; "almost three times more than other tomatoes," he says. These compounds are natural antioxidants that slow aging down. Work is being done on the shelf life of the product so that the food can last longer, thus helping prevent waste, while keeping the product "crispy and juicy."

Syngenta presented this innovation in the framework of the international fair Fruit Attraction.

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