

Commercial Horticulture

May 28, 2021

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IPMnet  
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Management for  
Commercial Horticulture  
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If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems (**include location and insect stage**) found in the landscape or nursery to [sgill@umd.edu](mailto:sgill@umd.edu)

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Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)

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### Ambrosia Beetle Activity

By: Stanton Gill

Thanks to each of you who responded about ambrosia beetle activity this week. I received emails and calls from a nursery in southern New Jersey and one in Bucks County, PA. The nursery in New Jersey reported frass tubes were being pushed out on *Styrax* trees at their nursery. They said this was the first activity they have seen in years from ambrosia beetles damaging trees in their nursery. Several years ago, they had damage on redbud and *Styrax*. The nursery in Pennsylvania reported over 100 yellowwood liners that had frass tubes coming out this week. In previous years, they have seen damage on redbud, *Styrax*, and the stellar series of dogwoods.

We are seeing *Xylosandrus crassiusculus* numbers increasing in our traps here at CMREC. *X. germanus* numbers in our traps are still low. Richard Uva checked the alcohol baited Lindgren traps in Federalsburg on the Eastern Shore on Thursday afternoon and 75 new camphor beetles were in the trap. We are seeing a strong upswing in this ambrosia beetle. Watch for wet areas on trunks of trees and large round holes.

Jane Smith reported that an assortment of trees (including redbud and kousa dogwood) were planted in Easton in December. The trees did not leaf out or bloomed, then did not leaf out. There were borer holes and frass tubes on the trunks.

## Cicadas – Statewide Update

By: Stanton Gill

Well, College Park, Bethesda, and Washington D.C. were all ahead of the game with emergence of 5<sup>th</sup> instar nymphs coming out of the ground and adults showing up in landscapes. Paula Shrewsbury sent along an email reporting that she saw the first female ovipositing into a dogwood branch in College Park this Thursday.

On the weekend of May 21, we started getting many reports of the first signs of adults emerging from 5<sup>th</sup> instar nymphs in Olney, Germantown, and Brookeville in Montgomery County and emergence in parts of Baltimore County just outside the beltway.



**Many adult cicadas were emerging on the trunk of this sycamore tree in Brookeville on May 22, 2021. Katie Shapiro noted that they were as high as 20' up and 12' from the flare. And, there were so many that they were falling off.  
Photos: Katie Shapiro**

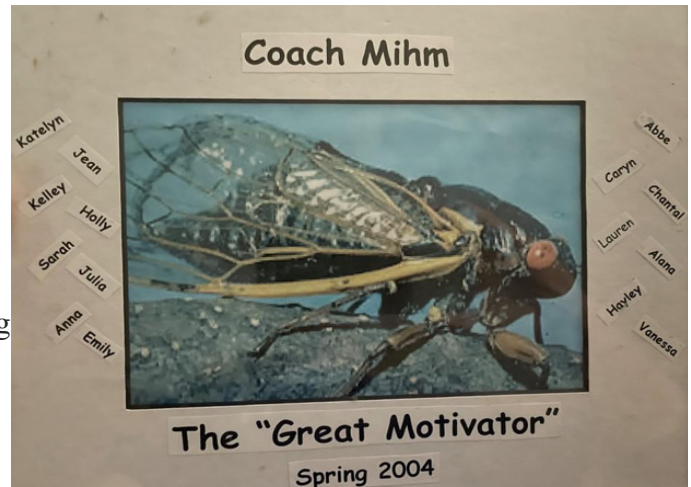
Though College Park and other urban areas are reaching peak emergence, it still is yet to happen in other parts of the state. Soil temperatures are still below the 64 °F temperature range in upper Carroll County, northern parts of Baltimore County, Alleghany County, Garrett County, and most of Washington County. Hunter's Nursery reported the first adults showing up Sunday in Finksburg in Carroll County. Steve Clancy, Town Creek Landscaping, reports that cicada adults are not out in the Westminster area of Carroll County yet. The Cooke family of Garrett County reported no adult cicada activity as of May 27<sup>th</sup>. Keep in mind the soil temperatures are still cooler in this part of the state, and they tend to be about 2 weeks behind central Maryland.

Thanks to all of you that have been sending in pictures of cicadas in your area of the State Maryland but we have plenty of pictures at this point. We are receiving in novel pictures of large spiders feeding on adult cicadas. One person even sent in a video of a very large spider devouring an adult cicada. And, it was an entertaining 17 seconds of viewing. We had several pictures submitted of urban free-range chickens snacking on cicadas this week. Several people sent in pictures of assassin bugs feeding on freshly emerged adult cicadas. All of the predators of the world are having a feast. Our cicada vacuuming dog picture last week stimulated people to send a huge supply of dogs and cats eating cicadas.



When the temperatures reached the 90 °F on Sunday May 23<sup>rd</sup>, the singing males were in full chorus mode in the Olney area of Maryland. On Monday when the rains started, their singing was almost non-existent. The males generally stop singing at nightfall but start up again when the sun comes up. The cold and rain blew in Sunday night, and with the low temperatures and rain on Monday and Tuesday, we did not hear male cicadas singing much for these two days in most of central Maryland. This all changed on Wednesday when temperatures shot up into the 90 °F range. It cools down again this weekend with predicted rain, so don't expect a lot of male singing or new or additional 5<sup>th</sup> instar emergence until it warms up again in parts of Maryland that have not seen emergence yet.

**Baseball and Cicadas:** We are receiving some great stories on cicadas, but one of the best I heard this week was from Bernie Mihm of Fine Earth Landscaping. He said back in 2004, when the last emergence of Brood X occurred, he was coaching a 12- and 13-year old girl softball league in which his daughter was involved. They were great girls involved, but they just could not win a game to save their lives. When the cicadas came out in May of 2004, Coach Bernie was frustrated with their losing streak. So, he told the girls if they could win a game he would eat a cicada adult. Well, they won the next game and he ate a cicada. They also won the next 5 games, and the girls asked him to eat a cicada each time, which he did, true to his word. At the end of the season, the girls made him a cicada cake and gave him a signed card that said "To Coach Mihm – the great motivator." He and the girls on this team will remember these cicadas for many years. I told him it reminded me of the movie "A League of Their Own."



**Bernie Mihm was recognized for eating a cicada for each game that his daughter's softball team won**  
**Photo: Bernie Mihm, Fine Earth Landscaping Co.**



**These cicadas were covering a large area in Kingsville on May 24, and the trees nearby were absolutely covered as well.**  
**Photo: Claudia Hoffmann**



**You'll see cicadas hanging out on a wide range of plants, like this peony flower on May 25 in Timonium, after they emerge and before they fly up into trees.**  
**Photo: Rebecca Mcwilliams, Maxalea, Inc.**

Ron Muir, First Energy, sent in photos from Morgan’s Grove Park in Shepherdstown, WV. Ron noted that they were on the understory shrubs under the tree canopy along the railroad tracks in the back section of the park. He saw lots of empty pupal cases all over the different plants, but they were the only cicadas he found in the rain hanging out on May 24. Ron also mentioned that there were scattered reports of cicadas in the area – seem especially abundant in the Inwood/Bunker Hill area based on discussion with homeowners.



Some periodical cicada activity was reported this week from Shepherdstown, WV.  
Photos: Ron Muir, First Energy

**SOIL TEMPERATURES (From Chuck Schuster and Rachel Ross)**

	Glenwood	Stevensville	Gaithersburg
May 22	59		60
May 23	63		
May 24	65		
May 25	62	69	60
May 26	65	67	62
May 27	65	72	
May 28	63	72	

**Fifth instar cicadas emerge when the soil temperature is at 64 °F.**

**2021 MDA Pesticide Container Recycling Program**  
See the [brochure](#) for dates and locations



## Squirrel Damage

By: Stanton Gill

Bernie Mihm, Fine Earth Landscaping, sent in a photo of bark stripping occurring this spring on one of his customer's Japanese red maple. Larry Hurley also sent in photos of damage on his European beech that is 20 feet tall. Larry noted that the damage is 6 feet up on the tree. We have had similar pictures sent in the spring and late fall of similar damage that is caused by squirrels. Squirrels are known for their habit of chewing on things, including the bark on trees. They usually chew on trees that have thin bark, such as Japanese red maple, because it is easier to chew than thicker bark. Squirrels use bark in their nests. When bark is removed from trees, the cambium layer and the girdled branches die.



**Squirrel damage on Japanese red maple**  
Photo: Bernie Mihm, Fine Earth Landscaping



**Squirrel damage on European beech**  
Photo: Larry Hurley



**Another small animal active on plants this week was this chipmunk feeding on a rose flower**  
Photo: Ed Weber, Home Landscaping





Dan Feingold found that deer have eaten some *Chasmanthium latifolium* down to the nubbins in Brooklandville. Dan noted how the "the usable plant choices are declining".  
Photo: Dan Feingold, Maxalea, Inc.

### Galls on Witchhazel

Chrissy Moore, U.S. National Arboretum, found these galls on *Hamamelis* 'Sunglow' this week. These galls are caused by aphids. Birch trees are the alternate hosts. When you see the galls, it is too late for control measures.



Aphids cause these galls on witchhazel  
Photo: Chrissy Moore, U.S. National Arboretum

### Diseases (*Taphrina* species)

Marie Rojas, IPM Scout is finding oak leaf blister (*Taphrina*) just starting to show up on the leaves of *Quercus rubra*. Elaine Menegon, Good's Tree and Lawn Care, is reporting peach trees infected with peach leaf curl. It is too late in the season for control measures.

## Potato Leafhoppers

Marie Rojas, IPM Scout, found potato leafhoppers on the tips of *Acer rubrum* cultivars. This pest arrives from the south, riding up on the jet streams. Look for leafhoppers on plants such as redbud, zelkova, river birch, maple, goldenrain tree, elm, honeylocust, sycamore, and London plane trees. They feed most often on the undersides of leaves. Potato leafhoppers tend to be a problem on nursery trees and are not as likely to be found in high numbers on landscape trees. Potato leafhopper feeding by adults and nymphs causes the tip growth on maples to curl over and harden which is typically referred to as 'hopperburn'. The distorted growth is often mistaken as herbicide damage. Multiple generations continue to damage the new tip growth that flushes out on maples. A systemic insecticide can be used for control.



Look on the undersides of leaves on plants such as maple for potato leafhoppers  
Photo: Marie Rojas, IPM Scout

## Bagworm Hatch

We are receiving our first reports of bagworm hatch this week. Matt Mitcheltree, North Hill Tree, found them in Jarrettsville on May 26. Jason Hipp, Deeply Rooted Tree Care, found just hatched bagworms in the Woodbine area. Check infested trees for egg hatch before treating. Monitor plants such as arborvitae, spruce, and Leyland cypress. Bagworms are also found on deciduous trees and herbaceous plants, but the damage is usually less evident. Bt (Dipel, Caterpillar Attack), Spinosad (Conserve) or Acelepyrn will all give good control of young larvae.



Early instar bagworm larva feeding on spruce

## Fruit Thinning - Now

By: Stanton Gill

If you are maintaining fruit plantings for your customers, action needs to be taken in the next week. To obtain good fruit size for apples, pears, peaches, nectarines, and apricots, you should thin the fruit that set this spring. Peaches and nectarines are thinned so there is a fist distance between fruit. This not only sizes up the fruit, but allows air to circulate around the fruit and help reduce disease incidence. If fungicides or insecticides are applied, it will allow better coverage of the fruit. Apricots can be thinned to half a fist distance between fruit. Apples and pears set fruit set in a cluster of usually 4 - 7 fruit. Thin out all but one or two fruit for each cluster. If you do not thin fruit at this time, customers will have a bunch of small fruit that is pretty much useless. Thinning of fruit also keeps the fruit tree from going into biennial bearing if done before mid June. I thinned peach, nectarine, and apricot trees in our orchard last weekend, and it is amazing to see how fast the remaining fruit swells up. You basically have the month of June and early July to have nectarines, apricots, and peaches swell to a nice size for harvest.



## Honeylocust – Heavy Damage

By: Stanton Gill

This week, I was visiting with Rob Orndorff, City of Rockville. He asked me to look at some honeylocust trees that were looking rough. The picture shows a tree with very little foliage left on it. This is damage from honeylocust leafhoppers and plant bugs. We mentioned these insects in the last two IPM Alerts and now the damage is showing up this week. It may look bad now, but the trees will re-foliate later in the season.



**Planthoppers and plant bugs can defoliate trees early in the season**  
**Photo: Rob Orndorff, City of Rockville**

## Invasive Jumping Worms

By: Marc Imlay and Annise Dobson

Many of us have grown up thinking that earthworms are a sign of healthy, fertile soil. However, many earthworms found throughout Maryland are not native. Earthworms can be beneficial in their native ecosystems and agricultural settings, but their ability to re-engineer soil can completely restructure ecosystems and the microbial, plant, arthropod and vertebrate communities that live within them. Much of what we know about invasive earthworms comes from studies of invasive European earthworm species, whose effects on forests are particularly notable in temperate North America. More recently, ‘jumping worms,’ (the common name for several similar-looking species belonging to the family Megascolecidae, also known as crazy worms, snake worms, Alabama jumpers, Jersey wigglers, Georgia jumpers, pheretimoids), have invaded temperate and tropical ecosystems across the globe. Their distribution is patchy throughout North America, and while often associated with urban and suburban landscapes, they are appearing with greater frequency in natural areas and forests. Once introduced to a location, jumping worm populations grow rapidly, and can grow to high densities in 4-5 years. Due to their ecological, economic and recreational impact, and the difficulty in removing them once they have been established, jumping worms have been chosen as MISC’s Invader of the Month for November.

## How Insects Got Their Wings

### **The mystery of how insects developed wings has finally been solved**

In 1870, a German anatomist named Karl Gegenbaur was the first person to theorize that abdominal gills on water insects like mayflies eventually developed into wings. For the next 150 years, scientists have continued to wonder how insects got their wings.

Read about it in Mic: <https://apple.news/AhaCmMwDnTaiufSGYguyfxQ>



## Monarda Powdery Mildew

By: Karen Rane and David Clement

We're seeing early symptoms of powdery mildew on bee balm (*Monarda* sp.), one common perennial that has a "perennial" problem with this disease. The fungus colonizes the surface of leaves and stems, producing white, powdery spots. Severe infections cause drying of infected foliage, and leaf drop. There are a number of fungicides that can protect plants from powdery mildew, but planting resistant cultivars is an effective way to minimize the disease. Mt. Cuba Center in Delaware evaluated dozens of bee balm cultivars in trials for resistance to powdery mildew and other garden traits, and found cultivars 'Violet Queen', 'Judith's Fancy Fuchsia', 'Purple Rooster' and 'Garden View Scarlet' among the most resistant. The entire *Monarda* trial report can be found at this link: <https://mtcubacenter.org/trials/monarda/>



**Powdery mildew on bee balm (*Monarda* sp.)**  
Photos: Karen Rane, UMD.

## *Pulvinaria floccifera* – Cottony Camellia/Taxus Scale

By: Stanton Gill and Nancy Harding

Look for crawlers of cottony camellia/taxus scale in central Maryland. Nancy Harding, UMD, found ovisacs on a 'Dragon Lady' holly located in Olney on May 26. There were hundreds of eggs which is a good indication that egg hatch (crawlers) will soon follow. These crawlers will settle on the undersides of leaves along the veins and feed throughout the summer months. The growing degree days in Olney on 5/26 were 612 DD. If the growing degree days in your area are close to 649 DD, you should closely monitor the undersides of leaves where black sooty mold is present on host plants. We are getting lots of reports of this scale being on many Chinese hollies and taxus yews in Maryland this year. Several control options are available including use of Distance or Talus. The systemic insecticides such as dinotefuran, Altus, and Mainspring all work well on this scale.

For more information go to: <https://bugoftheweek.squarespace.com/blog/2013/1/8/flocked-hollies-cottony-camellia-scale-pulvinaria-floccifera>  
<https://extension.umd.edu/resource/cottony-camellia-scale-shrubs>

## Sooty Mold

By: Karen Rane and David Clement

In the May 7 IPM alert, Stanton Gill wrote about cottony camellia/taxus scale being reported on hollies and taxus by landscape managers. This scale produces lots of honeydew (a nice name for sugary excrement!), and with honeydew comes sooty mold. The black or gray coating on the upper leaf surface is due to a group of fungi with dark hyphae and spores. The fungi grow on the leaf surface but do not parasitize the leaf (sooty mold can just as easily grow on honeydew-covered surfaces like cars parked under scale-infested trees). The best way to manage sooty mold is to manage the insects that produce the food source for the fungi.



Heavy growth of sooty mold on holly (left). Scale insects on the underside of one of the leaves from the same shrub

Photos : Karen Rane, UMD

## Lecanium Scale

Marie Rojas, IPM Scout, is still finding lecanium scale on oaks this week in Laytonsville. They are still in the egg stage, no crawlers yet.

### Cottony Maple Leaf Scale, *Pulvinaria acericola* (soft scale)

By Nancy Harding and Paula Shrewsbury

On Tuesday May 25, cottony ovisacs (oblong waxy substance containing eggs) produced from female cottony maple leaf scales were found on the undersides of 'Winter King' hawthorn leaves. The ovisacs were chocked full of eggs. The degree days in Bowie on 5/25 were 714 DD.

The cottony maple leaf scale is occasionally confused with its close relative, the cottony maple scale (*Pulvinaria innumerabilis*); however, the cottony maple leaf scale females form their ovisacs on leaves, not on branches. Adult females are 3 to 4 mm long and 2 to 4 mm wide, slightly convex and are brown with a yellow-brown ridge down the back. The body is covered with flakes of clear wax, legs absent, eggs white to pale yellow and meshed in a white, cottony ovisac which may be up to 5 mm wide and 12 mm long. Newly hatched nymphs (crawlers) are pale yellow or green and translucent. There is one generation each year.



When the cottony maple leaf scale eggs hatch (crawlers) in late May to early June they usually move to the ribs of the leaf and feed. In late summer the scales crawl to the twigs of the host plant where they will feed for the rest of the fall, winter and early spring. The reported common hosts of the cottony maple leaf scale are maples and dogwoods, but it can also infest hollies, Andromeda, and others.

**Monitoring:** If honeydew, (sweet sticky liquid) excreted by the scale's sap sucking feeding, and/or sooty mold is noticed, look on the undersides of leaves for white cottony ovisacs and monitor for active crawlers. You might need to use a hand lens to see the crawlers as they closely adhere to the undersides of leaves.

**Control:** Natural enemies usually keep this soft scale in check providing biological control. However, if honeydew/sooty mold is abundant, control measures may be warranted. For best control, target the crawler stage (recently hatched eggs) of the scale. As noted above, crawlers could be active soon. Horticultural oil should provide suppression of the scale and be the least harmful to natural enemies. Since oil kills by contact, be sure to get thorough coverage of the plant tissue where scales are present.



Look for egg hatch of cottony maple leaf scale now through early June  
Photo: Nancy Harding, UMD

## Azalea Bark Scale

Sam Hamner, Good's Tree and Lawn Care, found azalea bark scale on rhododendron and azaleas in Lancaster, PA on May 26. First generation crawlers are active in Maryland in May and June. If the population is low and damage is minimal, look for beneficial insects which do a good job controlling this insect. In summer when crawlers are active, you can use a summer rate (0.5 – 1.0%) of horticultural oil for control.

## Predator Activity

Eric O'Neal, Good's Tree and Lawn Care, found lady bird beetle nymphs feeding on aphids on rose-of-Sharon in Harrisburg, PA on May 26. Adults and larvae of lady bird beetles feed on a variety of small insects. They also feed on nectar, pollen, and honeydew.



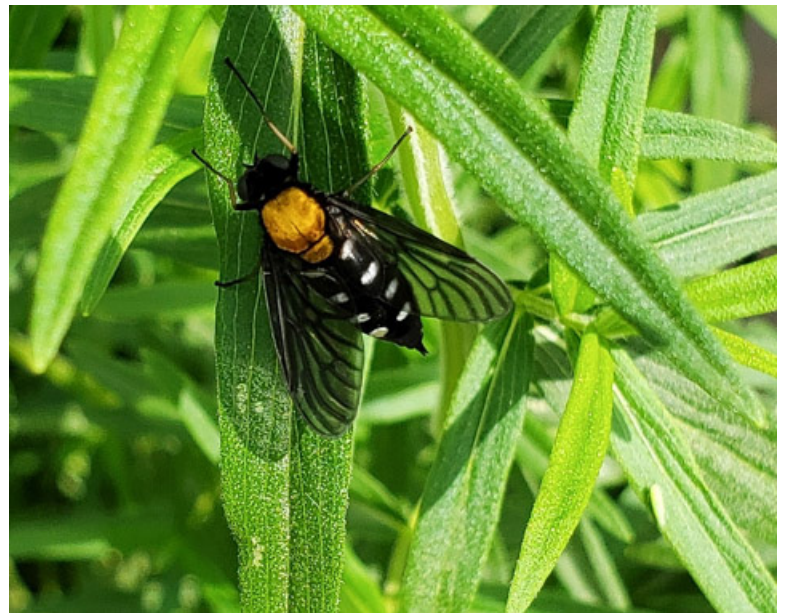
These lady bird beetle larvae have plenty of food on this aphid infested rose-of-Sharon  
Photo: Eric O'Neal, Good's Tree and Lawn Care

Marie Rojas, IPM Scout, found a syrphid larva eating leaf-rolling aphids on *Ulmus parvifolia* 'Allee'. The larvae are generalist predators of small, soft-bodied insects. Adult syrphid flies feed on pollen and nectar.



**Where aphids are feeding, look for syrphid fly larvae as well**  
Photo: Marie Rojas, IPM Scout

Marie Rojas, IPM Scout, found golden-backed snipe fly (*Chrysopilus thoracicus*) on mountain mint. in Beallsville this week. Both adults and larvae are predatory.



**Golden-backed snipe flies are often found in wooded areas**  
Photo: Marie Rojas, IPM Scout

## **Beneficial of the Week**

By: Paula Shrewsbury

### **The many benefits of black soldier flies.**

Beneficial insects are diverse in the benefits they may provide. In addition to biological control and pollination services, many are detritivores or decomposers, and some provide multiple benefits. Today I discuss the black soldier fly, *Hermetia illucens*, which is a decomposer and a food resource for other animals. The black soldier fly is a common and widespread fly (Diptera) in the family Stratiomyidae. Black soldier flies are native to the Neotropical area but now are dispersed across all continents and cosmopolitan in its distribution. The adult black soldier fly is slightly over ½” in length with a black body and a slightly metallic look. It is a wasp mimic and even makes a loud buzzing sound when it flies but is harmless. Females lay eggs (up to 600) in cracks or on surfaces near decaying matter (ex. compost, manure). The black soldier fly larvae are legless maggots with a dark gray stripe on its end.



Interestingly, adults and larvae are not pests and they do not vector any diseases. The larvae play an important role as decomposers, breaking down organic matter and returning nutrients back to the soil. Black soldier flies are relevant to and used by humans in many ways. Because the larvae are rapacious feeders, they are used for composting agricultural waste and household food scraps. In addition, black soldier fly larvae are used commercially as an alternative source of protein in animal feed, and pet and fish food. Soldier fly larvae are actually produced and processed in what are referred to as insect factories throughout the world.

Due to their high metabolic efficiency in converting decaying organic matter, including animal waste, into fly protein, larvae of the black soldier fly have been commercialized in some parts of the world to turn compost and manure into feed for animals like chickens, pigs, and fish. An added bonus of their industrious metabolism has led farmers to consider them as a partial solution to managing manure generated by hogs and chickens. Significant reductions of *E. coli* and *Salmonella* were measured in hen manure after larvae were added onto the manure. One report has it that 45,000 black soldier fly larvae can consume more than 50 pounds of manure in two weeks. In a strange game of turnabout, after black soldier fly larvae eat manure, their frass (excrement) can then be used as soil amendment to improve crop yield. Black fly larvae were shown to reclaim pollutants, for example, nine organic chemicals were reduced or disappeared from manure with black soldier fly larval activity. Recent studies on antibiotics have demonstrated the potential of black soldier flies as sources of antimicrobial compounds for medical use. Who would have guessed that fly maggots could be beneficial in so many ways.



**Black soldier flies, *Hermetia illucens*, are true flies that mimic wasps but are harmless.**  
Photo: M.J. Raupp, UMD



**Black soldier fly larvae (*Hermetia illucens*)**  
Photo: David Cappaert, Bugwood.org



**Biocomposter for raising soldier flies to produce fuel from the pupa.**  
Photo: J. LaForest, UGA, Bugwood.org

## Weed of the Week

By: Chuck Schuster

With the cicada noise some of us are hearing, and with moisture varying by location around the region, one will find weed progression different. With the mild winter, many are getting a head start on seed production. Maryland has a Noxious Weed Regulation which requires the control of seed production on these selected plants. Spraying is NOT required.

This week, Canada thistle (*Cirsium arvense*) is currently peeking out above many grasses and shrubs in the area. (Photo 1) It can be found in many locations, so be aware of it and make note of where it is found. (Photo 3) Canada thistle is a creeping perennial that reproduces by seed and rhizomes. It is frequently found in patches because of its horizontal rhizome growth. Roots can be found penetrating the soil up to 36 inches downward. Seeds will germinate about the same time as the appearance of root derived shoots starting in April and going through May. Two flushes are found most years, one in late spring and then again in late fall. It can be distinguished from other members of the thistle family by looking at the stem and flowers. The stem on Canada thistle will be spineless, unlike bull thistle or musk thistle, and the flowers lack spines or prickles, again unlike bull or musk thistle. Seedlings have cotyledons that are club-shaped; leaf margins are not regular and have spines. Leaves are alternate, sessile, simple, and oblong. They have an irregular lobe with spiny margins. Canada thistle plants can produce 1,000 seeds per flowering shoot. Canada thistle will not have a basal rosette. (see Photo 2)

Control can be accomplished by using many broadleaf post emergent herbicides. In turf areas 2,4-D with chlorsulfuron, and dicamba are effective. In beds and nursery rows repeated application of glyphosate is effective, Roundup on dry land, and Roundup Custom in damp areas. Do not spray too frequently as one wants the next generation to emerge before application. Cultural controls would include fertility management, being mindful of nitrogen applications, as excess nitrogen will increase weed growth. A high mowing height to allow shading of newly germinating seeds is an effective management tool in turf. Burning is not an effective method of control for Canada thistle.

## Plant of the Week

By: Ginny Rosenkranz

*Fagus sylvatica* 'Purpurea Tricolor' is a small deciduous tree that is also called the Tricolor European Beech. The leaves in springtime have dark purple centers with bright pink margins that mature to dark bronze green centers and soft pale pink to white margins during the summer months. In the autumn, the leaves turn a bronze gold. Because the margins are so light, the plants thrive best in dappled or afternoon shade and rich, moist, but well drained soils. Unlike the American Beech (*Fagus grandiflora*), the leaves are shorter, mostly untoothed with a wavy margin and have prominent parallel veins. Plants can grow well in full sun, but the leaves will scorch! *Fagus sylvatica* 'Purpurea Tricolor' only grows 30 feet tall with a spread of 10-20 feet, unlike the species which can grow 60 feet tall. The bark is thin, smooth, and dark gray in color. In April to May, the female



**Photo 1: Look for Canada thistle this week**

**Photo: Chuck Schuster**



**Photo 2: Canada thistle does not have a basal rosette**

**Photo: Chuck Schuster**

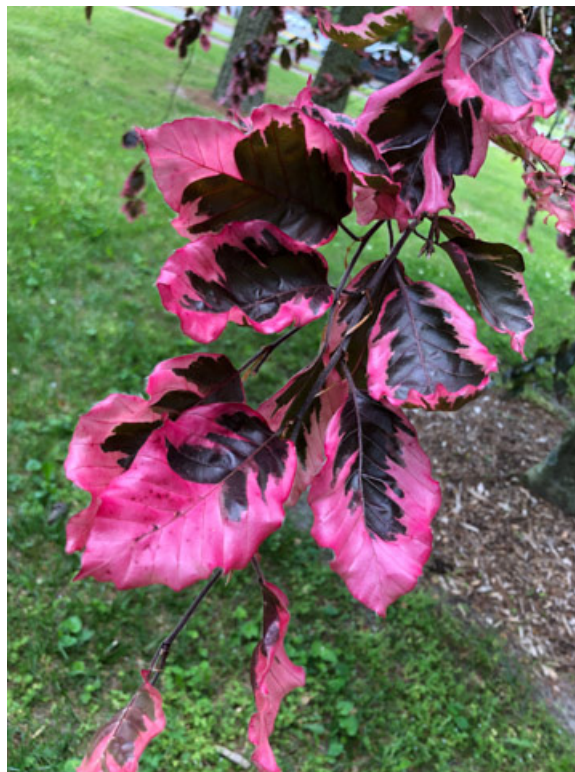


**Photo 3: You can find Canada thistle growing in many types of areas**

**Photo: Chuck Schuster**



flowers bloom yellow green in color and are held in short spikes, while the male flowers are held in round clusters on long drooping stems. In the autumn, the female flowers mature to triangular nuts that are covered with spiny bracts. Plants are cold hardy in USDA zones 4-7 and are said to be deer resistant. Because of the distinctive color, *Fagus sylvatica* 'Purpurea Tricolor' is a perfect specimen tree for a shady spot. Stressed trees may be attacked by borers, beech scale, aphids, Japanese beetles, and caterpillars. Diseases includes beech bark disease, powdery mildew, and canker.



***Fagus sylvatica* 'Purpurea Tricolor' grows to about 30 feet tall. Leaves in the spring have bright pink margins**

**Photos: Ginny Rosenkranz, UME**

## **Pest Predictive Calendar “Predictions”**

By: Nancy Harding and Paula Shrewsbury

In the Maryland area, the accumulated growing degree days (DD) this week range from about 509 DD (Cumberland) to 853 DD (Reagan National Airport). The [Pest Predictive Calendar](#) tells us when susceptible stages of pest insects are active based on their DD. Therefore, this week you should be monitoring for the following pests. The estimated start degree days of the targeted life stage are in parentheses.

- Oystershell scale – egg hatch / crawlers 1<sup>st</sup> gen (486 DD)
- Gypsy moth – egg hatch (492 DD)
- White prunicola scale 1<sup>st</sup> gen – egg hatch / crawlers (513 DD)
- Euonymus scale – egg hatch / crawlers (522 DD)
- Bagworm – egg hatch (602 DD)
- Cottony camellia/Taxus scale – egg hatch / crawlers (649 DD)
- Juniper scale – egg hatch / crawlers (694 DD)
- Calico scale – egg hatch / crawlers (765 DD)
- Oak lecanium scale – egg hatch / crawlers (789 DD)
- Japanese maple scale – egg hatch / crawlers (829 DD)
- European elm scale – egg hatch / crawlers (831 DD)

- Cottony maple scale – egg hatch / crawlers (872 DD)
- European fruit lecanium scale – egg hatch / crawlers (904 DD)

See the [Pest Predictive Calendar](#) for more information on DD and plant phenological indicators (PPI) to help you better monitor and manage these pests.

### Degree Days (as of May 26)

Aberdeen (KAPG)	515
Annapolis Naval Academy (KNAK)	682
Baltimore, MD (KBWI)	716
Bowie, MD	741
College Park (KCGS)	611
Dulles Airport (KIAD)	647
Ft. Belvoir, VA (KDA)	666
Frederick (KFDK)	617
Gaithersburg (KGAI)	611
Greater Cumberland Reg (KCBE)	509
Martinsburg, WV (KMRB)	525
Natl Arboretum/Reagan Natl (KDCA)	853
Salisbury/Ocean City (KSBY)	702
St. Mary's City (Patuxent NRB KNHK)	761
Westminster (KDMW)	735

Important Note: We are using the [Online Phenology and Degree-Day Models](#) site. Use the following information to calculate GDD for your site: Select your location from the map Model Category: All models Select Degree-day calculator. Thresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start:Jan 1

**Conferences** (Recent CDC guideline changes for Covid-19 have reduced restrictions of in-person programs)

#### [Pest Management Recertification Program](#) (in-person program)

June 3, 2021

**Location:** Carroll Community College, Westminster, MD

#### **Eastern Shore Procrastinators Pesticide Conference on June 8, 2021**

<https://www.eventbrite.com/e/2021-eastern-shore-procrastinators-pesticide-conference-tickets-150763609013>

Once the attendees pay via eventbrite, they will be emailed the link to the zoom conference.

#### **Greenhouse Program**

July 8, 2021

**Location:** Catoctin Mountain Growers, Keymar, MD



**IPMnet**  
**Integrated Pest Management for**  
**Commercial Horticulture**

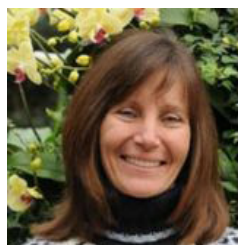
**[extension.umd.edu/ipm](http://extension.umd.edu/ipm)**

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