UNIVERSITY OF MARYLAND EXTENSION

# TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture — May 22, 2020

## In This Issue...



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

**extension.umd.edu/ipm**

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 sklick@umd.edu

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**Regular Contributors:**
Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant
Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)
Weed of the Week: Chuck Schuster (Retired Extension Educator)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
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## Ambrosia Beetles

By: Stanton Gill

After that large surge on Saturday and Sunday of flight of *Xylosandrus* species, the weather turned colder and windy with the trap counts falling like a rock in a pond. I had very few beetles in the trap by Thursday. Brian Dahl, Pope Farm, sent samples to me today. He had seven *X. germanus* and one *X. crassiusculus* this week in his trap. A grower in Frederick County had four beetle hits on wood bolts last week. I received an email from a Pennsylvania nursery reporting that they are seeing ambrosia beetle hits on magnolias and redbuds in the southeastern part of PA.

**Marie Rojas found ambrosia beetles drilling into Styrax obassia in Frederck County. Photo: Marie Rojas, IPM Scout**

It does warm up again on Sunday and Monday next

week, so we may see another upswing in flight activity. I will let you know early next week if we see a surge.

Make sure if you are applying pyrethroids to the trunks of susceptible plants such as yellowwood, redbud, Japanese maples, styrax, and hybrid chestnut that you use a low volume sprayer and direct the spray just on the trunk of susceptible trees. Pyrethroids are generalists as far as what they kill and they last for several weeks. If you start blasting pyrethroids around the landscape, you will be impacting beneficial organisms. University of Tennessee entomologists are investigating repellants and if they are successful, we will expand our studies to include these in Maryland trials.

**Wet spots on this Japanese maple indicate ambrosia beetle activity has started**
**Photo: Stanton Gill**

## Euonymus Caterpillar Damage and Powdery Mildew

By: Stanton Gill

We had this picture sent in of defoliation by euonymus caterpillar. It looks bad, but euonymus is pretty resilient and will flush out new growth rapidly covering up all of this damage. Also note that the foliage is infected with powdery mildew.

With the cool nights we are having, there has been a lot of powdery mildew activity on euonymus and other plants. Bob Mead, Mead Tree and Lawn Care, and Paul Wolfe, Integrated Plant Care, both called to report heavy infection of this disease in Bethesda and Frederick. The powdery mildew infected euonymus leaves are dropping off with the heavy disease pressure, and some may mistake this leaf drop for insect feeding.

**Euonymus caterpillars can cause significant damage, but euonymus usually flushes out new growth**

**Cottony Taxus-Camellia Scale, *Pulvinaria floccifera***
By: Stanton Gill

I appreciate all the pictures of P*ulvinaria floccifera* soft scale being sent in to me. This helps us see when the eggs are hatching and crawlers are beginning. By the way, I cannot remember ever getting so many reports of this scale on so many Chinese hollies and taxus yews. It might be people are being more observant. Also, it could be the increase of photos being sent in, but it appears this scale is showing up in landscapes in many, many parts of Maryland. When David Clement and I gave presentations down in Norfolk, VA in January, we walked among the camellia collection and we found well established populations of this *Pulvinaria* scale present. I'm not sure if the weather has been perfect for this scale, but it is definitely on the upswing of reported infestations.

A lot of pictures are being sent in of white egg sac development this week, and we are getting close to hatch in many areas. On Wednesday, Bob Mead, Mead Tree and Turf Care, called in to report he found crawlers on a Chinese holly and a taxus yew in Frederick. Marie Rojas, IPM Scout, found cottony camellia scale eggs under fluff on a 'Nellie R Stevens' holly in Darnestown on May 15. Mark Schlossberg, ProLawn Plus, Inc. found them active on hollies in Baltimore over the weekend.

You can apply the insect growth regulators, Talus or Distance, now. I would avoid broad spectrum materials and systemics if the Chinese holly is in bloom, to reduce the chance of impact on pollinators. It is not as big a factor with taxus yews.

**Mark Schlossberg sent in these great pictures of leaves with honeydew and 3rd instar females on stems and one on the leaf in Baltimore producing an egg sac, shot over the weekend.**
**Photo: Mark Schlossberg, Pro Lawn Plus, Inc.**

## Lecanium Scale

Marie Rojas, IPM Scout, found oak lecanium scale on *Quercus alba* (photo) and *Q. rubra* in Frederick County on May 19. As noted in last week's report, lecanium scales produce a lot of honeydew just before females lay eggs. Oak lecanium and European fruit lecanium scales are two common species in this area. The life cycles of these lecanium scales are very similar, but plant hosts vary (include oak, elm, hawthorn, pyracantha etc.).
**Control:** Apply pyriproxyfen (Distance) or buprofezin (Talus) mixed with 0.5 - 1% horticultural oil for control when the majority of eggs have hatched and/or settled first instars are present.

**If lecanium scale is producing a lot of honeydew, females will be producing eggs within several weeks**
**Photo: Marie Rojas, IPM Scout**

## European Elm Scale

Marie Rojas, IPM Scout, found European elm scale on *Ulmus americana* this week. This scale has one generation per year in our area and produces eggs from May into July. Look for the yellow crawlers along veins on the undersides of leaves from now through fall. Heavy infestations of this scale will produce large amounts of honeydew.
**Control:** Look for beneficial insects which can do a good job controlling this scale. If an insecticide application is necessary, treat with a soil drench of dinotefuran (Safari, Transtect) or make foliar applications of oil or Distance.


**Female European elm scales have a white, waxy fringe around their bodies**

## Oak Apple Gall

Marie Rojas, IPM Scout, found oak apple gall on *Quercus rubra* this week in Frederick County. This gall is caused by a tiny cynipid wasp. Damage is rarely significant so control is not necessary.

**This oak apple gall is caused by a small wasp**
**Photo: Marie Rojas, IPM Scout**

## Seed Maggots Causing Widespread Damage to Vegetable Seeds and Transplants

Jerry Brust, UME

I have gotten several calls, pictures, and descriptions of seed maggots attacking the seeds of peas, lima, snap, and kidney beans (fig. 1), cucumber and cantaloupe transplants and corn seed. Often no maggots are found in the hollowed out seeds or transplants because the fly larvae have already pupated, and it is very difficult if not impossible to find the pupal case in soil. This has been a really good year for the flies to remain active in our vegetables far longer than they normally do. Flies do well in cooler wet weather, which we have had the past month and a half. I wrote an article about these pests back in the second week of April as weather outlooks were predicting cool and wet conditions for the next few weeks—didn't realize it would be for the next month. Nothing can be done for the damaged seed or transplants now. Growers will have to replant or re-transplant the missing plants. If seed maggot adults (fig. 2), which are thin brown/gray flies a little smaller than a house fly that tend to swarm around the soil are still active in your garden, you'll need to treat before replanting (see the 2020-2021 Mid-Atlantic Commercial Vegetable Production Recommendations guide).

**Fig. 1 Seed corn maggot damage to seed**
**Photo: Ben Beale, UME**

**Fig. 2 Adult seed maggot**
**Photo: D. Paulk**

The adult flies are often found dead, stuck to vegetation during periods of wet weather. These flies have been infected by a fungus, *Entomophthora sp*. These infected flies usually will be found at the top of a tall object in the field such as a grass seed head or a wire field-flag (fig. 3). Just before the fungus kills them, the flies cement their body via their mouthparts to the tall object and die. If you look closely, you'll see the body is filled with the white fungus that has ruptured between the segments (fig. 4). Being on a tall object allows the spores of the fungus to move longer distances and infect more flies than if the fly had died on the ground. I have seen many fungus-infected flies this year. Unfortunately, the infection rate is not enough to reduce the SCM population and stop infestations.

**Fig 3 Two SCM flies killed by a fungus stuck to a wire flag via their mouthparts**
**Photo: G. Brust, UME**

**Fig. 4 Adult SCM killed by a fungus - white strands coming out of abdomen**
**Photo: G. Brust, UME**

## Pine Needle Rust

By: Karen Rane.

We received photos from a client in Delaware showing odd protrusions from the needles of a young loblolly pine (*Pinus taeda*). The structures may look like extremely large scale insects, but they are actually a spore stage of pine needle rust. Several species of the rust fungus *Coleosporium* can infect the needles of 2- and 3-needled pines. Like many rust diseases, the fungus needs two different plants to complete its life cycle. The spores produced on the pine needles are moved in air currents to the leaves of asters and goldenrod, where the fungus infects and in summer produces orange "pustules" typical of rust diseases. The disease usually does no permanent damage to infected pines. For more detailed information on needle rusts, refer to this link from the University of Minnesota: https://extension.umn.edu/plant-diseases/pine-needle-rust

**Closeup of aecia (spore structures) of pine needle rust**
**Photo: C. Porterfield**

**Pine needle rust on loblolly pine**
**Photo: C. Porterfield**

## Deer Resistant Perennials Correction

By: Stanton Gill

Carol Allen picked up that I labelled one of the plants pictures in last week's report as ornamental alliums when in fact they were not. Here is her comment: "The image on page 8 of the IPM news looks more like a *Camassia* not an allium. Alliums generally have round heads of flowers either stiff or drooping. *Camassia,* however, presents in that spear formation." I showed a close-up to Phil Normandy, Lead Horticulturist at Brookside Gardens, and he agreed she is right it is a *Camassia*. The good news is not only are alliums deer resistant, but *Camassia* appear to also be deer proof. Lucky that entomologists have these alert horticulturists watching our back.

## Flowering Cherry Defoliation and Cherry Shot Hole

By: D.L. Clement, K. K. Rane, and Stanton Gill

Pogo Sherwood, Pogo's Tree Experts, called Wednesday morning to report that Kwanzan and Yoshino cherry trees in the Kensington area are showing spotting of foliage and there are spots on the leaf petioles. Chris Hall, Horizon Outdoor Design, is also reporting premature leaf drop on Kwanzan cherries in Sparks. A fair number of leaves are dropping off the plants in mid-May.

**Holes in cherry tree leaves are caused by what are commonly called "shot-hole diseases" which can be caused by either a fungus or a bacterium; excessive leaf drop is common**
**Photo: Chris Hall, Horizon Outdoor Design**

This cool, wet, windy spring has resulted in severe flowering cherry defoliation. The symptoms include leaves with many holes, yellowing leaves and early defoliation. There is not much you can do at this time of year. Fertilization will not help the tree unless there is a nutrient deficiency. These very common foliar symptoms are caused by the "Shot-Hole diseases." The two pathogens that commonly cause these symptoms are bacterial leaf spot caused by the bacterium, *Xanthomonas pruni*, and cherry leaf spot caused by the fungus, *Blumeriella jaapii*. Both diseases are favored by wet cool weather. I also suspect that the unusually windy and cold weather have also contributed to early leaf drop because of frost damage to the leaf petioles and mechanical damage from the wind tearing off of young leaves that were not yet hardened off.

These diseases will also continue to infect leaves throughout the growing season if rainy weather persists. Management involves removal of older heavily damaged or poorly growing trees. Try to adjust tree spacing and use proper pruning to allow better air circulation to promote faster leaf drying and remove fallen leaves in the fall to reduce overwintering pathogens. On high value trees or trees with a history of severe foliar disease, the use of fungicides may help manage the fungal disease. Be aware however, that these treatments will only provide preventative disease management or slow down the rate of disease development and will not cure already infected leaves. Therefore early sprays have to start as the new leaves are expanding and continue while rainy periods persist.

Three fungicides for landscapes include Eagle (myclobutanil), Protect DF (mancozeb) and Cleary's 3336 (thiophanate methyl). Be Sure to Check all Label Instructions. Also, note that commercial orchards have different fungicide labels for edible cherries and these are not interchangeable with landscape usages.

## Spotted Lanternfly (SLF)

By: Stanton Gill

Penn State Extension put on a webinar on Tuesday on spotted lanternfly. SLF has spread to within 15 miles of the Ohio border, after being found in Alleghany and Beaver Counties. USDA has awarded the Penn State SLF working team $7.3 million to help combat its spread and conduct trials to evaluate control options. Penn State Extension personnel are reporting a strong odor in areas where SLF builds up in large numbers, especially when they feed on tree of heaven. The bacteria feeding on the fermenting sugars gives off a strong vinegar-like odor.

In the ornamental plant industry in PA, most growers report that the biggest problem is compliance with the quarantine requirements. In August and September when spotted lantern fly is flying a lot, many growers are trying to load trucks in the morning when flight activity is low. Some are installing large fans to blow on loading areas to discourage flight in the area. Very little actual damage is being found on ornamental plant materials.

Chemical treatments are showing some of the best control using dinotefuran as foliar and basal trunk drenches. For early instar stages, the entomopathogenic fungi, *Beauveria bassiana* (BotaniGard) can be sprayed onto the nymphs if the humidity is high for best impact.

Researchers are finding that SLF feed on fruit trees and hops for about 2 weeks, but most tree fruit and hops are not preferred hosts. Grapes are another story. Nymphs and adults will feed on grapes and can cause injury. Late in the season, they tend to head toward vineyards. The good news is that SLF likes to feed on Oriental bittersweet in the 4th instar, besides feeding heavily on grapes at this stage. The 4th instars like to feed on willow also.

In studies to see if they need ailanthus to reproduce, they found it does not make a huge difference, but it delayed their development into adults by about 7 days compared to adults that fed on silver maples, willow, and birch. Egg masses laid were lower in numbers when the adults fed on maples and other hosts and high number of viable egg masses laid when they fed on ailanthus. In PA studies, they found females like to lay eggs on logs and on living birch and willow trees. They found red maples growing in street tree plantings that had heavy infestations of SLF after the winter had branch dieback. They found the fungus, *Botryosphaeria*, which is a weak pathogen that moves into stressed trees.

If you find spotted lantern fly nymphs in MD be sure to report them to MDA at their online site at DontBug.MD@maryland.gov. We have two counties in quarantine status right now – Harford County and Cecil County.

## Squirrel Damage

Marty Adams, Bartlett Tree Experts, sent in this photo noting it shows 3-year old squirrel damage on an established Japanese maple. Marty reported that they hit this tree hard initially, but haven't been back since then. It has not been determined as to exactly why squirrels strip the bark off of trees, but an article by Joe Boggs, Ohio Extension, covers several possible reasons at https://bygl.osu.edu/index.php/node/389.

**Squirrels strip bark off of trees and can cause significant damage**
**Photo: Marty Adams, Bartlett Tree Experts**

## Fruit Tree Update

By: Stanton Gill

So, the cold thinned a lot of fruit, but some of your customers may have gotten lucky and still need to thin fruit in the end of May to early June. Here is a pictorial of peaches that need to be thinned. You want a fist distance between each fruit to size up properly and reduce brown rot problems.

**Too many fruit - need to thin**
**Photo: Stanton Gill**

With the picture of the apple cluster pop off the surrounding fruit. Leave the largest fruit and do not leave more than two apples in each cluster.

**Fruit update from Kari Peter at PA State Experiment Station in Biglersville, PA:**

This spring has been trying due to the early warm March followed by an April that was on average 5 degrees cooler than normal. The result was a long, protracted flower development period. This has been coupled with freeze events on April 17 and May 9. Cold damage has been reported in all areas of Pennsylvania. We strongly advise that growers inspect all orchard blocks for damage to the flowers. Examine flowers and look for live green pistils and ovaries in all flowers and fruitlets. We have also seen damage to the spur leaves. This may mean that the photosynthetic rates may be less than ideal. Due to the extended bloom you may also see a large range in fruit size. When determining average fruit size try to make sure you collect similar flower types, such as fruit on spurs versus lateral fruit.

**Close-up of peaches before thinning**
**Photo: Stanton Gill**

**Peaches after thinning**
**Photo: Stanton Gill**

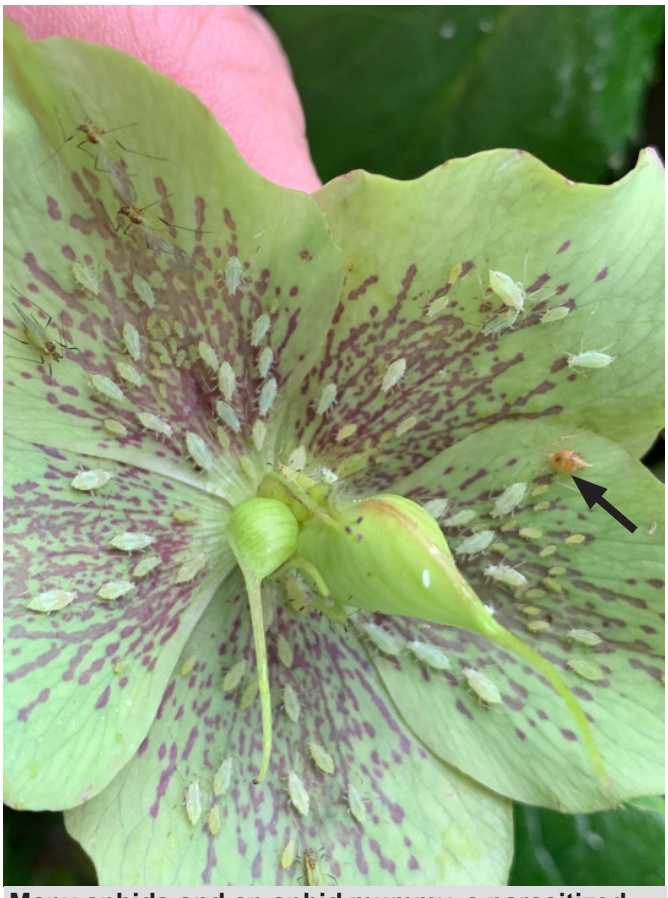
## Termites

Karen Murtagh reported finding swarming termite alates (winged maters) at Violette's Lock on May 17. Your clients may notice black bodied flying insects that look like a large ant without a thread-like waist. In May, the winged matures of subterranean termites are flying around. When the weather gets warm, the winged termites come out to mate and develop new colonies.

**Winged alates of termites are active at this time**
**Photo: Karen Murtagh**

## Aphid Activity

Nancy Harding, UMD, wrote an article in last week's IPM report on aphids. We continue to receive reports this week of aphid activity. Elaine Menegon, Good's Tree and Lawn Care, is finding aphids feeding on milkweed in Ephrata, PA. Jim McWilliams, Maxalea, Inc., and Bernie Mihm are both finding them on hellebores in Baltimore and Silver Spring, respectively. Jim is also finding crapemyrtle aphids on crape myrtles. The cool wet weather of April and May is creating perfect conditions for several aphid species to flourish. With the cool weather, many of the predators and parasites are not very active so aphids can build up rapidly.



**Many aphids and an aphid mummy, a parasitized aphid (shown by arrow), are on this hellebore leaf**
**Photo: Jim McWilliams**

**Cast skins and an aphid mummy, a parasitized aphid (shown by arrow), are on this hellebore leaf**
**Photo: Bernie Mihm**

**Crapemyrtle aphids have become a regular pest of crape myrtles. This heavy infestation is causing a lot of distorted foliage.**
**Photos: Jim McWilliams, Maxalea, Inc.**

## Miner Bees

By: Stanton Gill

Dan Felice, Site One Company, found holes in a lawn in the Frederick area from miner bees. These are small bees that look like miniature honey bees. They are not aggressive so try to get your customers to leave them alone since they are great pollinators and beneficial. Paula Shrewsbury wrote up a great article on these bees last spring. You can see the article at the IPMnet website - search for miner bees.

**Miner bees are active in turf this week**
**Photo: Dan Felice, Site One Company**

## Cold Damage Part III: It Keeps Coming

By: Stanton Gill, Andrew Ristvey, Karen Rane and David Clement

Steve Black said we nailed it with the cold injury photo collection from last week. He wanted us to add more photos to the report to show how much damage really did occur with the last cold fronts blowing in after a mild weather start for the season.

***Juglans regia* 'Carpathian'**
**Photos: Marie Rojas, IPM Scout**

***Abies koreana***
**Photos: Marie Rojas, IPM Scout**

***Acer tegmentosum* 'Joe Witt'**
**Photos: Marie Rojas, IPM Scout**

***Acer griseum***
**Photos: Marie Rojas, IPM Scout**

***Liquidambar styraciflua* 'Hapdell'**
**Photos: Marie Rojas, IPM Scout**

***Nyssa sylvatica***
**Photos: Marie Rojas, IPM Scout**

**Nandina in Baltimore**
**Photo: Mark Schlossberg, ProLawn Plus, Inc.**

**Heartnut**
**Photo: Stanton Gill**

## Assassin Bug

Marie Rojas, IPM Scout, reports that assassin bugs have hatched in Frederick this week. They are a generalist predator and are active throughout late spring and summer.

**Check assassin bug egg masses to see if you have hatching in your area**
**Photo: Marie Rojas, IPM Scout**

## Beneficial of the Week

By: Paula Shrewsbury

**Orange assassin bug is one of many predacious assassins in the insect world.**

**A mating pair of orange assassin bug, Pselliopus barberi. Note the distinct black striping on the legs and along the margins of the abdomen**
**Photo: Josh Emm, MarylandBiodiversity.com**

Assassin bugs are true bugs (order Hemiptera, suborder Heteroptera) in the family Reduviidae. There are over 7000 species of assassin bugs making them one of the largest families in the Hemiptera. Assassin bugs range in size from about ¼ - 1.5" depending on species. Most assassin bugs can be recognized by their elongate head and "neck", and their long thin antennae and legs. Most importantly, both adults and nymphs have a long, dangerous looking proboscis (mouthpart) that they use to suck the life out of their prey - literally. Assassin bugs have a groove on the underside of the thorax. When not using their lethal proboscis, they tuck it under their body and the tip of the proboscis rests in the groove. Assassin bugs are very important predators of a diverse array of pest insects found feeding on ornamental plants and in other natural and managed plant systems. Most assassin bugs are ambush predators and hang out on foliage and flowers in search of prey such as caterpillars, flies, beetles, aphids, hoppers, and more. Click here to see a milkweed assassin bug nymph foraging. They approach their prey slowly, quickly grab the prey with their front legs, and then impale the insect with its beak. Through its beak, the wheel bug injects digestive enzymes that liquefy the body tissues of the prey making it possible for the predator to suck up its newly captured food. Be careful if you handle these predators – they will defend themselves and their long "beaks" can result in a painful bite. Some species have raptorial legs (similar to praying mantids) or hairs on their legs that help then hold onto their prey. Other species in the nymphal stage will create effective camouflage by covering themselves with the remains of their dead prey.

This past weekend I was riding my bike along the C&O canal north of Hancock MD. Wild phlox was abundant and in peak bloom sporting their pinks and purples along the side of the trail. As I stopped to admire the phlox more closely, I noted there were many insects attracted to the phlox. One of the highlights of my observations was the presence of an **orange assassin bug**, *Pselliopus barberi* (Reduviidae), on a phlox leaf laying a batch of eggs (*see image*)! Orange assassin bug is common in the eastern U.S. They are commonly found in the spring or fall on flowers or foliage. They overwinter as adults in sheltered locations (under bark, rotting wood, etc.). Adults are about ½" long. They are orange with striped black markings on their legs, antennae, and the outer edge of their abdomen. There is one generation per year. As the weather warms, March – May, orange assassin bug adults become active, mate, and lay eggs. They usually lay clusters of 4 to 29 eggs. It takes about 85 days from egg hatch to adult. Nymphs are active from about June to August. Both the nymphs and adults are predacious.

If you are fortunate enough to come across one of these assassin bugs, watch it carefully and you may see it "assassinate" its lunch.

**An orange assassin bug with its leafhopper prey. Go biological control!**
**Photo: M.J.Raupp, UMD**

**Orange assassin bug female laying a cluster of eggs.**
**Photo: P.M. Shrewsbury, UMD**

## Weed of the Week

By: Chuck Schuster

The weather outside is frightful, at least for this time of year. Area temperatures are behind in growing degree days. Soil temperatures remain cool, though one week ago they did shoot up to 62 °F as the coolest temperature for one day. Cloudy conditions continue to keep soils cool. Many wonderful blooms are found out in the landscape and turf currently. Unfortunately, many are not desired plant species.

As promised last week, this week's weed is the second installment in weeds in the mint family.

A persistent weed, which is difficult to control, is ground ivy, *Glechoma microcarpa,* also often called creeping charlie. It is a cool season perennial, a member of the mint family, and is found throughout the northeast and southern United States. Ground ivy is found commonly in both turf and landscape settings. This weed has creeping stems that root at the nodes, that are square (mint family) and mostly without pubescence (hair). It will present with a diffuse root system. Flowers occur in clusters of three, and in the area between the stem and the leaf axils. They are funnel-shaped, lavender in color, and bloom in early spring. Leaves are nearly round,

toothed and are found on long petioles. When mowed, the plant emits a mint-like odor. This plant was brought to the North American continent from Europe for its medicinal purposes and has also been used in the making of beer. A desired plant by some as it can be consumed, it is disliked by others. It is consumed by some because of its claimed medicinal properties which are not part of this article.

Cultural control of this weed in turf can be accomplished by maintaining a dense turf through a properly selected mowing height and proper fertilization based upon appropriate pH and nutrient applications based upon a soil analysis and research-based nitrogen recommendations. In landscapes, while mechanical removal can be used, this method is often less than successful. Mowing height can influence this plant greatly. Keeping it shaded slows its progression down. This weed will thrive under short turf mowing heights.

**Creeping charlie**
**Photos: Chuck Schuster**

Pre-emergence products do not control creeping charlie. Post emergent products have shown good results when applied properly and at the proper time. Chemical control of this weed can be accomplished in spring or in fall when the plant is actively growing. Products labeled for this weed will include *Broadleaf* weed control chemicals for turf. Products containing Triclopyr, 2,4-D, dicamba and fluroxypyr have been shown to have the best results. It is best to apply any of these products three days after mowing and three days prior to the next mowing. This timing allows tor the leaves to be well developed and able to absorb the material. Several of these products need to be reviewed carefully as they have drift and volatilization related issues. Labels need to be reviewed carefully for proper rates, pressures, and carrier volume. Failure to follow directions can lead to poor control and potential of off target movement of these chemicals which can cause damage to desired species of plants or crops. Post emergent products including Fiesta and Prizefighter will control ground ivy, but will not eradicate it. These products must be reapplied, and it may take up to 3 applications to see desired results. Prizefighter will damage desired species of turf also. Post-emergent products for the landscape can include glyphosate and Prizefighter, but note that Prizefighter will not eradicate. Mulch can be an effective method of control but not eradication.

**Comment from Steve Sullivan, LandCare:**
FYI. In this week's edition (May 15), it was mentioned that you could use Barrier (Dichlobenil), also called Casoron, as a pre-emergent for the weed-of-the week. It needs to be mentioned that this is a pre and post emergent product and will kill any herbaceous plant it is put on, such as perennials, grasses, turf, liriope and any other non-woody plant. I like this product as a post-emergent to use over woody plants, such as Junipers and 'Coloratus' Euonymus since it will kill perennial weeds and not hurt these types of plants. Image I sent shows what it looks like when used on Liriope.

## Plant of the Week

By: Ginny Rosenkranz

*Sisyrinchium angustifolium* 'Lucerne' or blue-eyed grass is a native perennial that at first sight looks a bit like a grass but is in the Iris Family with narrow sword-shaped, overlapping leaves that grow in an upright rosette. Dark green foliage grows about 6-8 inches tall in tufted clumps and the bright purple blue star-shaped flowers rise above the foliage to about 12 inches. The compact cultivar, 'Lucerne', flowers profusely in May with larger, one inch wide flowers that are strongly colored violet blue with bright yellow centers. Clusters of flowers are formed on the tops of flattened branched stalks. Each flower has 3 pointed petals and 3 slightly wider sepals that form a ring around a bright yellow center. Darker blue violet nectar guides arch out in the petals. Bumble bees, sweat bees, and other native bees and pollinators visit the flowers for nectar and pollen in the spring, and some

native birds eat the seeds in the fall.

These plants are listed as deer resistant. Plants are cold hardy to USDA zones 5-9 and thrive in full sun and moist, well-drained, slightly acidic soils. They will tolerate light shade and a wide variety of soils and soil pH, but will still need the moist, well-drained soil. To promote good vigorous growth, the plants should be divided every 2-3 years. Plants can be used in cottage gardens, native plant gardens, naturalized in meadows, or in dappled shade gardens. The species will self-seed from rounded capsules by wind, but the cultivar 'Lucerne' usually doesn't. Like all of the Iris Family, only a light layer of mulch should be used to prevent crown rot. No other pests or diseases were listed.

**Some native birds eat the seeds of blue-eyed grass in the fall**
**Photo: Ginny Rosenkranz**

## 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 **272 DD** (Aberdeen) to **553 DD** (Patuxent River Naval Base). 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.

- Spruce spider mite – adult/nymphs (276 DD)
- Azalea lace bug - egg hatch 1st gen (281 DD)
- Pine needle scale - egg hatch 1st gen (283 DD)
- Hemlock woolly adelgid - egg hatch 1st gen (300 DD)
- Spirea aphid - adult/nymph (326 DD)
- Lilac borer - adult emergence (350 DD)
- Emerald ash borer – adult emergence (421 DD)
- Fourlined plant bug - egg hatch/early instar (435 DD)
- Basswood lace bug – nymph (462 DD)
- Lesser peachtree borer – adult emergence (468 DD)
- Maskell scale – egg hatch 1st gen (470 DD)
- Oystershell scale – egg hatch 1st gen (486 DD)
- Gypsy moth – egg hatch (507 DD)
- Euonymus scale – egg hatch (522 DD)
- White prunicola scale – egg hatch (594 DD)

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

**Degree Days (as of May 20)**

| | |
|---|---|
| Aberdeen (KAPG) | 272 |
| Annapolis Naval Academy (KNAK) | 379 |
| Baltimore, MD (KBWI) | 422 |
| Bowie, MD | 476 |
| College Park (KCGS) | 377 |
| Dulles Airport (KIAD) | 403 |
| Frederick (KFDK) | 365 |
| Ft. Belvoir, VA (KDA) | 461 |
| Gaithersburg (KGAI) | 360 |
| Greater Cumberland Reg (KCBE) | 302 |
| Martinsburg, WV (KMRB) | 296 |
| Natl Arboretum/Reagan Natl (KDCA) | 549 |
| Salisbury/Ocean City (KSBY) | 464 |
| St. Mary's City (Patuxent NRB KNHK) | 553 |
| Westminster (KDMW) | 409 |

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 calculatorThresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start: Jan 1

## Woodland Wildlife Wednesday Webinar

Wednesday, May 27, 2020, 12 noon - 1 PM

The Woodland Stewardship Education program invites you to a series of free "Woodland Wildlife Wednesday" webinars, to be held on the last Wednesday of the month. Our first webinar will be on May 27th at 12 noon.

Our guest speaker is Harry Spiker, Black Bear Biologist for the Maryland Department of Natural Resources - Wildlife & Heritage Service. His program, "Biology, Management & Behavior of Black Bears in Maryland," will present the state of the species in Maryland, including current populations, nuisance problems and mortality.

This free webinar will be conducted via WebEx. Please visit https://woodlandwildlifewed.eventbrite.com to register. Participants can log in up to 15 minutes before the webinar begins.

## CONFERENCES

**June 3, 2020 (8 a.m. to 12 p.m. EDT)**
Eastern Shore Pesticide Recertification Program
Location: This program will be conducted on-line.

**Program Recertification:**
**Maryland** - 2 (Forestry), 3A, 3B, 3C (Turf, Ornamental interior, Ornamental exterior), 5 (Aquatics) 6 (Right of Way), 7 (general pest), 10 (Research and Demonstration), 13 (Arial) and Private Applicator
**Delaware** - 2, 3A, 3C, 5, 6, 10

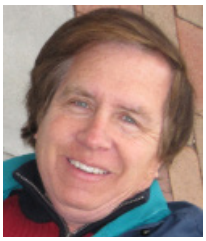
To register, go to: **https://2020esprocrastinator.eventbrite.com**

**June 12, 2020 (8 a.m. to 2 p.m. EDT)**
25th Annual Procrastinator's Pesticide and Urban Nutrient Management **Virtual** Conference
University of Maryland Extension - Montgomery County
Location: This program will be conducted on-line.

**Program Recertification (as of 5/22/20):**
Maryland - CORE, 3A, 3B, 3C, 6, 7A and 10
Maryland Turf NM Credits - 2 CEU's

**For more information and to register**

## CONTRIBUTORS:

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Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.