UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **May 12, 2023**

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 sgill@umd.edu

Coordinator Weekly IPM Report:
Stanton Gill, Extension Specialist, IPM and Entomology for Nursery, Greenhouse and Managed Landscapes, sgill@umd.edu. 410-868-9400 (cell)

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), David Clement (Extension Specialist) and Fereshteh Shahoveisi (Turf Pathologist)
Weed of the Week: Chuck Schuster (Retired Extension Educator) and Kelly Nichols (Extension Educator, Montgomery County)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Potato Leafhoppers

Marie Rojas, IPM Scout, reported that potato leafhopper adults are active in Montomgery County on May 12. Adults arrive 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. Their feedings causes the tip growth of trees to become hardened and distorted. Potato leafhoppers tend to be a problem on nursery trees and are not as likely to be found in high numbers on landscape trees. Multiple generations continue to damage the new tip growth that flushes out on maples. A systemic insecticide can be used for control.

Adult potato leafhoppers are arriving into the area on the jet stream.
Photo: Stanton Gill, UME

Beech Leaf Disease

By: Karen Rane, UMD

Beech leaf disease (BLD), caused by the invasive foliar nematode *Litylenchus crenatae* subsp. *mccannii*, has been causing decline in mature American and European beeches, and death of young beech saplings since symptoms were first observed in Ohio in 2012. In recent years, the disease has spread throughout the Northeast (Figure 1), and was identified in Virginia in 2021. We are asking residents, foresters and landscape professionals to keep an eye out for BLD in Maryland. The characteristic symptoms of this disease are dark "stripes" on the leaves that are bounded by leaf veins – this symptom is best observed by viewing the leaves from below with light passing through the leaf tissue (Figure 2). Leaf distortion and thickening of leaf tissue are also associated with this disease. All beech species, including native American beech (*Fagus grandifolia*) as well as European beech (*F. sylvatica*) and Oriental beech (*F. orientalis*), can be affected. The nematode overwinters within leaf buds, and enters foliage as it develops in the spring. Scientists are studying how the nematode spreads from tree to tree, how it affects tree health and how it might be managed, but there is much to learn. More information on this disease can be found at the US Forest Service website http://www.dontmovefirewood.org/wp-content/uploads/2019/02/Beech-Leaf-Disease-Pest-Alert.pdf. Anyone seeing beech leaf disease symptoms should report it to their state department of forestry or university plant diagnostic laboratory. In Maryland, contact MDA Forest Pest Management at 410-841-5922 (https://mda.maryland.gov/plants-pests/pages/forest_pest_management.aspx), MDA Plant Pathologist Noah Adamo (noah.adamo@maryland.gov, 410-841-5920) or Karen Rane at the UMD Plant Diagnostic Laboratory (rane@umd.edu, 301-405-1611).

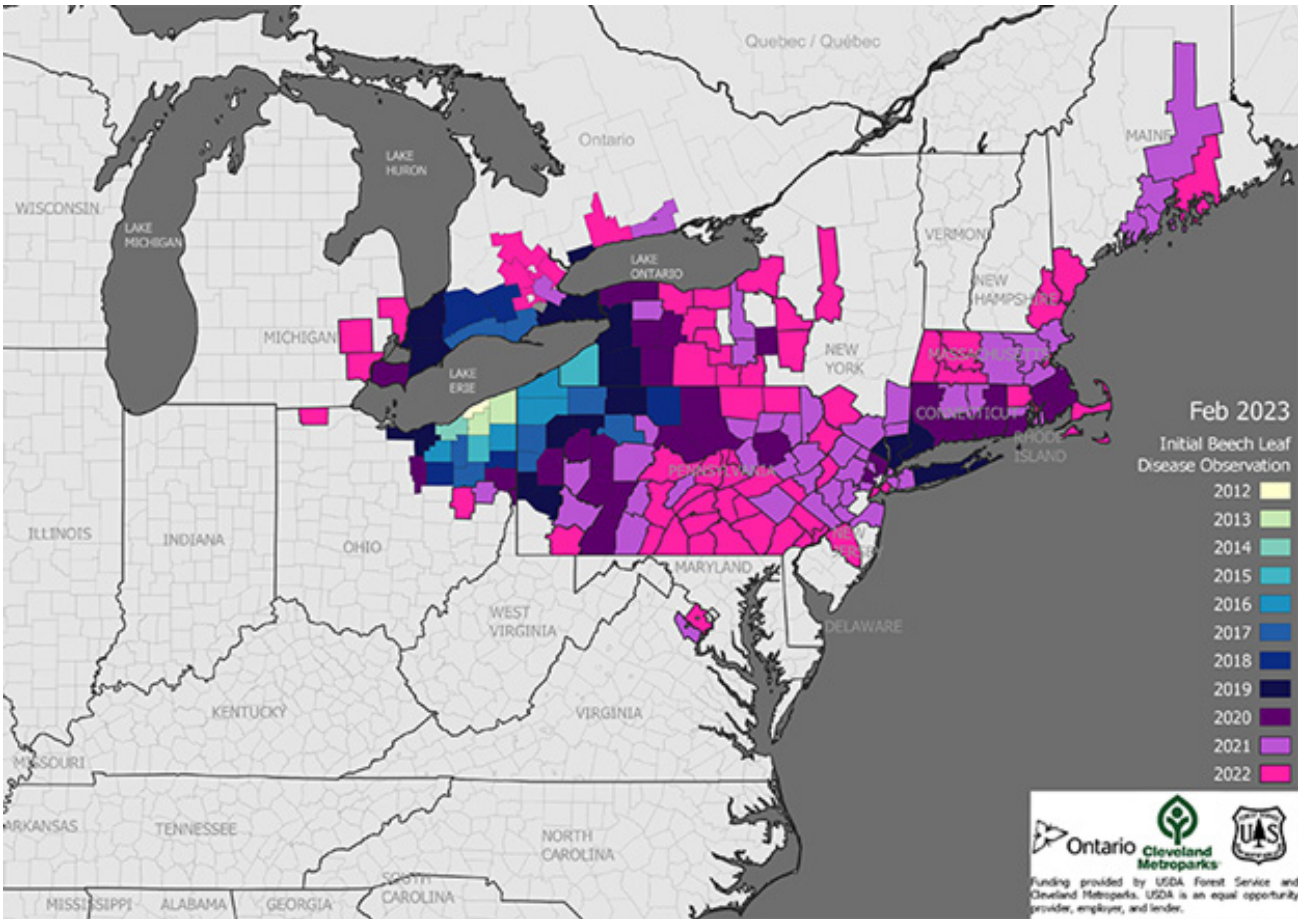


Figure 1. Distribution of Beech Leaf Disease (map from USFS).

Figure 2. Dark "stripes" on leaves of beech, typical symptoms of Beech Leaf Disease.
Photo: J. Chatfield, Ohio State University Extension.

Adjuvants Must be Registered with the MD State Chemist

By: Niranjana Krishnan, UMD

Maryland law requires adjuvants to be registered with the state chemist. I looked at the state legislature bills and it is not a new thing: https://mgaleg.maryland.gov/mgawebsite/Search/FullText. I also reached out to Kelly Love at MDA and she said the state chemist has been registering adjuvants for at least six years now. Hope this helps!

https://mail.google.com/mail/u/0?ui=2&ik=648b72560b&attid=0.1&permmsgid=msg-f:1765369827796877492&th=187fda814b0680b4&view=att&disp=inline&realattid=f_lgf8w9g60

Aphid Activity

We continue to receive reports of aphids this week. Elaine Menegon, Good's Tree and Lawn Care, found aphids on spireas in Hershey and Lebanon PA on May 8 and 9. Evaluate the level of aphids present and whether predators are active when deciding if treatments are necessary.

Spirea aphids
Photo: Elaine Menegon, Good's Tree and Lawn Care

Spotted Lanternfly (SLF) Updates

By: Paula Shrewsbury, UMD

Everyone should know from reports over the past 2-3 weeks that SLF are hatching in many locations throughout the region. At this time, we are seeing lots of 1st instar nymphs of SLF and maybe a few second instar nymphs. These early instars are on the foliage of trees they have hatched from or moved onto herbaceous vegetation, where they are feeding on foliage. Fortunately, at these early instars they do not seem to cause much damage or produce much honeydew (relative to later instars).

If you have high numbers of nymphs, you can target them with horticultural oil or another contact insecticide. Remember, they will move a lot as they mature so treating now does not guarantee you won't have high numbers of SLF later in the season. Please continue to report what you are seeing and your location to help us track the SLF populations.

Early instar nymphs of spotted lanternfly detected by Bob Boyer in Baltimore, MD.
Photo: Bob Boyer, Tree & Turf Health Care Advisor

These spotted lanternfly nymphs were found in Sykesville near Rt. 70 and Rt. 32.
Photo: Jason Hipp, Deeply Rooted Tree Care

Fire Blight

Marc Vedder is reporting seeing fire blight on both apples and crabapple in Washington D.C.. The best thing to do is to prune well below the infected area.

Fire blight infection
Photo: Marc Vedder

Gloomy Scale on Red Maple

By: Stanton Gill

On a recent landscape site visit, we saw several red maples that were in various stages of decline. On examination, we found they were severely infested with gloomy scale, *Melanaspis tenebricosa*. This scale is hard to see unless you get really close to the trunk and major branches. It was on red maples (*Acer rubrum*), but it also infests sugar maple (*Acer saccharum*) a variety of large-statured trees, including catalpa (*Catalpa*), hackberry (*Celtis*), mulberry (*Morus*), sycamore and planetree (*Platanus*), elm (*Ulmus*), sweetgum (*Liquidambar*), tulip poplar (*Liriodendron*), black locust (*Robinia*), and willow (*Salix*) grape vines (*Vitis*) and hollies (*Ilex).*

There is one generation per year in Maryland. The crawler emergence period depends on temperature and can vary slightly from year to year. The approximate time to monitor for them is between mid-July and late August. They overwinter on the bark as juveniles. Talus or Distance applied at crawler stage is the best control.

If you see dieback on red maple, look closely for gloomy scale on the bark. It can be very difficult to detect.

Sycamore and Ash Anthracnose

Todd Armstrong and Luke Gustafson, The Davey Tree Expert Company, found sycamore anthracnose infections in Towson and Baltimore City this week. Symptoms can appear severe, but this disease rarely affects the overall health of mature trees. See the May 14, 2021 IPM report for more information. Luke also found anthracnose on ash. Luke noted that this infection was causing signifcant leaf drop.

Once infection occurs, there are no control measures.
Photo: Todd Armstrong, The Davey Tree Expert Company

Cottony Camellia/Taxus Scale and Euonymus Scale

Luke Gustafson, The Davey Tree Expert Company, reported that he is seeing quite a few egg masses of cottony camellia/Taxus scale over the last few weeks in Baltimore City. Luke is mainly seeing this scale on *Ilex cornuta*, *Camellia* spp., and *Ilex* x. *meserveae*. We also received a sample of this scale on sweet box. Only eggs were present. Marie Rojas, IPM Scout, also found egg masses of this scale and euonymus scale on variegated euonymus in Chevy Chase this week. Look for the first generation of crawlers of euonymus scale from now until early June.

Continue to closely monitor scale populations for crawlers. When you see crawlers, apply Talus or Distance.

Keep monitoring cottony camellia/Taxus scale for crawlers before applying a control measure.
Photo: Luke Gustafson, The Davey Tree Expert Company

Azalea Lace Bugs

Luke Gustafson, The Davey Tree Expert Company, found azalea lace bug nymphs active on May 10 in Baltimore City. Look on the undersides of the leaves for clusters of nymphs, covered in spines over their body. Just after they hatch, the nymphs cluster together to feed. By the 2nd instar, they start to spread out on the undersides of leaf surfaces.

Control: Several good systemic insecticides will control this first generation of lace bug. Altus is a systemic that will work on azalea lace bug. Endeavor is another control option. Two more generations will occur over the summer.

Look on the underside of azalea foliage for all stages of azalea lace bugs and fecal spots.
Photo: Luke Gustafson, The Davey Tree Expert Company

Exobasidum Gall on Azalea and Camellia

Luke Gustafson, The Davey Tree Expert Company, found exobasdium galls on azalea this week. Paul Wolfe, Integrated Plant Care, reported finding heavy infections of these galls on camellias in Bethesda and Rockville. Infection occurs on new tissue. This gall rarely affects the overall health of azaleas, so control is not usually necessary.

The galls start out as fleshy pale green growths and mature to brown dry structures.
Photo: Luke Gustafson, The Davey Tree Expert Company

Roseslug Sawflies

Ginny Rosenkranz, UME, found roseslug sawflies damaging roses on the Eastern Shore this week. There are two species, the bristly roseslug sawfly and the curled roseslug sawfly that have multiple generations and will feed on roses throughout the summer. Sawflies are best controlled when they are young larvae. You can simply pick them off by hand. A forceful spray of water from a hose can also knock off sawflies. Once dislodged, they cannot climb back onto the plant. If control is warranted, horticultural oil, Spinosad, Mainspring, and Acelepyrn all work very well on this pest.

Roseslug sawflies regularly cause damage to roses throughout our area.
Photo: Ginny Rosenkranz, UME

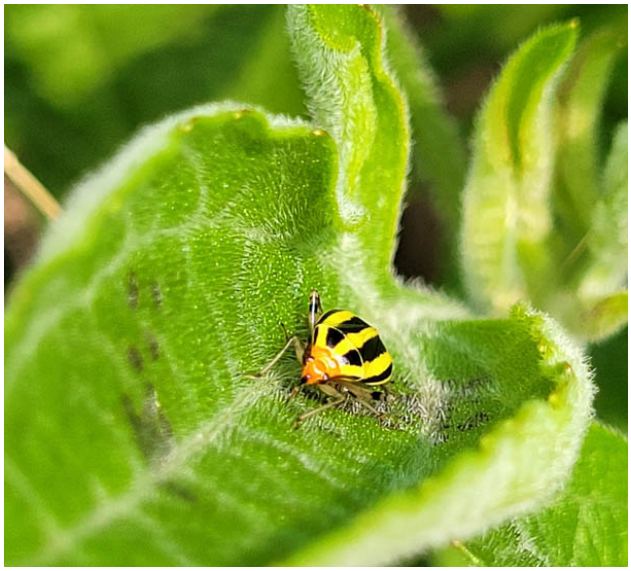
Honeylocust Plant Bug and Four-lined Plant Bug

By: Stanton Gill

We have reached the point in the degree day models when honeylocust plant bug and flea hopper start feeding. We visited a site in Columbia on Monday and saw the early feeding damage on honeylocust trees. If the populations are high enough, they can cause defoliation of the trees in some years. Systemics such as dinotefuran (Transtex and Safari) or Altus work well on these sucking insects.

The other true bug that is active now is the four-lined plant bug. When they first hatch, they are bright red and have black wing pads and black dots on their abdomen. As the grow, nymphs are reddish orange, and the wing pads are larger with a light-colored stripe on each. They feed on about 250 species of plants. Look for them on a variety of herbaceous plants including chrysanthemum, Chinese lantern, liatris and shasta daisy, mint, basil, azalea, dogwood, forsythia, viburnum, amur maple, sumac, zinnia, marigold, currant, gooseberry, and pepper.

Their feeding produces dark, round, sunken spots, about 1/16 to 1/8 inch wide. The spots may become clear. After several weeks, the damaged tissue can drop out, leaving small holes. Feeding on new growth can cause wilting. Four-lined plant damage may be confused with damage from leaf spot diseases. Four-lined plant bug damage creates spots that are similar in size and shape. Fungal and bacterial diseases cause spots that are of different sizes, and have discolored outer margins.



Four-lined plant bugs are out in Beallsville on Rudbeckia.
Photos: Marie Rojas, IPM Scout

Honeylocust plants bugs cause distorted foliage.
Photo: Suzanne Klick, UME

White Prunicola Scale

On May 10 at a site in Montgomery County, we checked trees with white prunicola scale. Looking at these samples, Sheena O'Donnell, UME, found that some crawlers are active at this time. Marie Rojas, IPM Scout, found a lot of white prunicola scale on *Catalpa speciosa*. White prunicola scale (*Pseudaulacaspis prunicola*) is a major problem on cherry, fruit trees, and cherry laurel. If you are not seeing crawlers yet, you can monitor now for crawlers using electrical tape with the sticky side outwards. Talus or Distance can be used for crawlers or first settled instars.

White prunicola scale covering branches of *Catalpa speciosa*.
Photo: Marie Rojas, IPM Scout

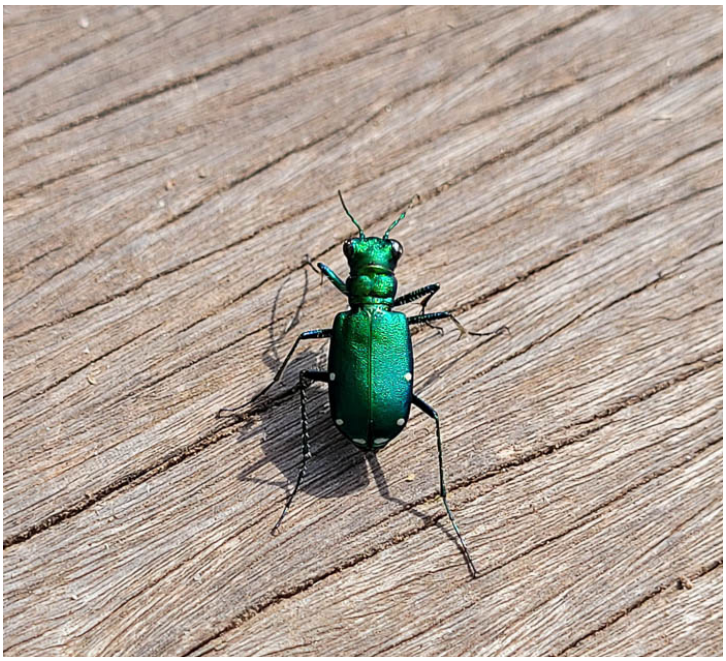
White prunicola scale crawlers are just starting to hatch this week in some areas.
Photo: Sheena O'Donnell, UME

Calico Scale

Marie Rojas, IPM Scout, reported a really high congregation of calico scale on one 'Valley Forge' elm. There are eggs under covers. Look for crawlers in June.

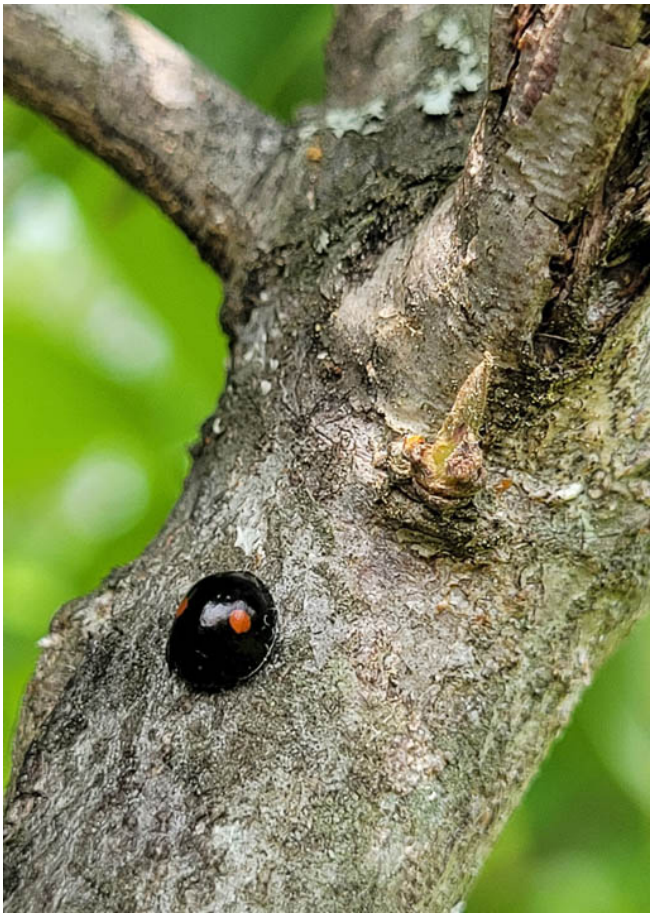
There are eggs under the female covers of calico scale at this time of year.
Photo: Marie Rojas, IPM Scout

Predaceous Insect Activity



The six-spotted, metallic green tiger beetle is a very fast moving predator.
Photo: Marie Rojas, IPM Scout

A species of lady beetle in the larval stage.
Photo: Luke Gustafson, The Davey Tree Expert Company



Twice-stabbed lady beetles (adults and larvae) feed on scale insects.
Photos: Marie Rojas, IPM Scout

Beneficial of the Week

By: Paula Shrewsbury

Crabronid wasps are also predators of emerald ash borer

In last week's Beneficial of the Week, I discussed predatory wasps in the family Crabronidae. Crabronids are a large group, over 9,000 species worldwide, of solitary hunting wasps. Most species of crabronids are unique in regards to what they eat (prey items), their nesting locations, and behaviors. Last week I wrote about the native crabronid wasp, *Bicyrtes quadrifasciatus*, known as the four-banded stink bug hunter wasp, which provisions its subterranean nest with not only native adult stink bugs, but also adults of the invasive brown marmorated stink bug (*Halyomorph halys*), for its young to feed on.

Adult *Cerceris fumipennis*, the smokey winged beetle bandit, carrying a buprestid beetle adult. Adult wood boring beetles (Buprestidae) are the preferred prey that they bring to their underground nest to feed their young.
Photo Mike Bohne, BugGuide.net

This week I want to discuss another crabronid wasp, *Cerceris fumipennis*, also known as the smoky winged beetle bandit. *Cerceris fumipennis* is native to eastern North America and known to provision its underground nest with adult metallic wood boring beetles in the family Buprestidae, including the highly destructive and economically important invasive emerald ash borer (EAB), *Agrilus planipennis* (Coloeptera: Buprestidae). *Cercercis fumipennis*, like most solitary bees are harmless and not known to sting people. *Cerceris fumipennis* adult females search trees for buprestid beetle adults which they bring back to their underground nest to provide food for their young. Adults are ½ - ¾" long; mostly black in color, and have one cream or yellow colored band on its 2nd abdominal segment. Females have 3 yellow patches on their face and males have 2 yellow patches. *Cerceris fumipennis* prefer to dig their underground burrow (nest) in sandy, compact soils such as dirt farm roads, camp sites, baseball fields, thin sandy lawn areas, or sandy parking lots. The nest hole openings are about the diameter of a pencil, they tend to go straight down, and there is a mound of soil around the hole referred to as tumili.

Several studies have documented that *C. fumipennis* catch EAB adults and bring them back to their nests suggesting they provide some level of biological control of EAB, although it is not clear what impact they actually have on EAB populations. Most interest in *C. fumipennis* has centered around its use a bio-surveillance or bio-monitoring tool to detect low density populations of EAB within a state or county region. Some of the first studies on this topic were done by researchers from the University of Guelph, Ontario Canada (P. Careless et al. 2013). Remember although these are solitary wasps, it is common to find many, up to a few hundred, holes / nests in the same location making it easy to monitor large numbers of wasps at a time. Careless and colleagues conducted studies that surveyed nesting locations of *C. fumipennis* and monitored the beetle species that *C. fumipennis* brought back to their nests. They determined that *C. fumipennis* brought native and non-native Buprestid beetles, including EAB, to their nests to provide as food for their young. Their research provided strong evidence that using *C. fumipennis* was a highly feasible organism to use as a bio-surveillance or bio-monitoring tool for detection of low-density populations of EAB. The earlier an invasive species can be detected in a new area, the more likely we are to slow its spread and reduce some of the damage they might cause.

To date USDA APHIS and several states have used *C. fumipennis* as a bio-surveillance tool, in conjunction with other tools such as traps, to detect EAB when they are at low densities in a state or region. This includes Delaware, Connecticut, New Hampshire, New York, Maine, Minnesota, and others. Mother nature is usually more efficient than we are when it comes to detecting certain biologically events.

Close up of the head of an adult female *Cercercis fumipennis*. Note the diagnostic 3 spots on the face. Photo: P. Careless, Toronto, Ontario, Canada

Close up of the head of an adult male *Cercercis fumipennis*. Note the diagnostic 2 spots on the face. Photo: P. Careless, Toronto, Ontario, Canada

Weed of the Week

By: Nathan Glenn, UME-Howard County

Ground Ivy, Glechoma hederacea (L.)

Ground ivy is a creeping perennial that reproduces by rhizomes and seed. It is commonly found in the lawns, pastures, and gardens through the northern United States. Also known as creeping charlie, gill-on-the-ground or gill-on-the-hedge–ground ivy is native to Europe and the British Isles, and is believed to have been introduced to North America by early settlers. This weed is both loved and hated. On one hand, it has a minty aroma when mowed and has many medicinal attributes for skin care and certain internal ailments. It is also commonly used for flavoring by homebrewers. On the other hand it is a creeping, hard-to-manage pain that is toxic to horses in large quantities.

Ground ivy flower up-close. Photo: Nathan Glenn, UME- Howard County

Flowers are found in clusters of 3, and in the area between the stem and the leaf axils. They are funnel-shaped, lavender and bloom in early spring. Leaves are oppositely arranged, nearly round, toothed and will be found on long petioles. The stems creep along the ground and root at the nodes. They are square, like others in the mint family; smooth to slightly hairy, and can extend 15 to 30 inches.

Ground ivy emerges in early spring as it enjoys the cool, damp conditions that usually come with March and April. However,

ground ivy can flower anytime from April to July and seeds mature about 1 month after flowering. In turf, ground ivy can be a huge weed problem in heavily shaded areas where the desirable turf species is probably struggling. Besides shade, low mowing height, poor fertility and improper pH are all factors that predispose a lawn to ground ivy encroachment.

Once ground ivy is present it is hard to control with cultural practices or herbicides. Management practices that alter or mitigate the factors contributing to the success of ground ivy's establishment will go a long way in controlling or eradicating the weed from your turf. Some of these practices could include establishing a shade-tolerant desired variety; opening the tree-canopy to let in more sunlight; raising the mowing height; and amending the soil. Chemical control of this weed can be accomplished post – emergence, in spring or in fall when the plant is actively growing. Products labeled for this will include Broadleaf weed control chemicals for turf. Products containing Triclopyr, 2,4-D, and fluroxypyr have been shown to have the best results.

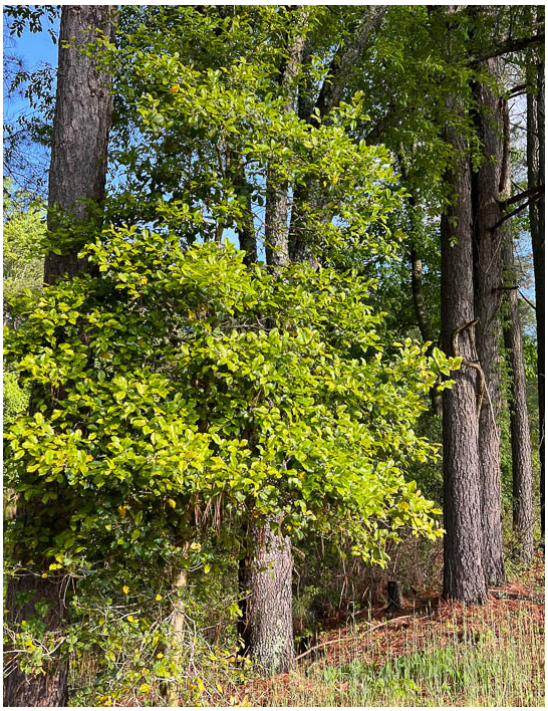
Ground ivy growth habit.
Photo: Nathan Glenn, UME- Howard County

Plant of the Week

By: Ginny Rosenkranz

Ilex opaca is our own native American holly tree that grows in an upright, densely pyramidal form, reaching 15-30 tall and 10-20 feet wide. The trees prefer full sun to part afternoon shade and need consistently moist, well-drained, acidic soils. The thick and leathery evergreen leaves are placed alternately on the stems and grow 1 ½ - 3 ½ inches long, ½ to ¾ of an inch wide. The margins are toothed and topped with a single spine, with 7-8 spines on each side of the leaves. Leaves are dark green with a matt or dull finish, which gives the holly the specific epithet or second name opaca for dull or opaque instead of the shiny leaves other hollies have. In May, both the dioecious female and male trees produce sweetly smelling creamy whitish-green flowers. The males have bright yellow pollen and are arranged on the stems in 3-12 flower clusters, while the female trees produce flowers in clusters of 2's or 3's, and without pollen. The flowers mature into dull red rounded berries ¼ to ½ inch long on a ¼ inch stalk in October, and usually persist on the trees throughout the winter, undergoing freezing and thawing, eventually fermenting before the native birds feed on them. Both the evergreen leaves and the red berries of the American holly make them favorites to cut and 'deck the halls' during the Christmas

season. Plants are winter hardy in USDA zones 5-9 and are tolerant of deer browsing and urban air pollution. They can be planted as a specimen tree or as a hedge or in a woodland garden. There are numerous cultivars that can boast shiny leaves, darker or lighter red berries, less spines, yellow fruit or yellow and green leaves. One of the oldest American holly was planted by George Washington at Mt. Vernon in 1785. Insect pests include holly leaf miner, spider mites, whitefly and scale. Diseases can include leaf spot, leaf rot, powdery mildew and tar spot. The evergreen leaves often turn yellow in the early spring, but these are the oldest leaves that have been on the tree at least 3 years and is a natural leaf drop.



American holly needs consistently moist, well drained, acidi soils.
Photo: Ginny Rosenkranz, UME

Degree Days (as of May 10)

Abingdon (C1620)	379	Annapolis Naval Academy (KNAK)	460
Baltimore, MD (KBWI)	502	College Park (KCGS)	478
Dulles Airport (KIAD)	480	Ft. Belvoir, VA (KDA)	458
Frederick (KFDK)	405	Gaithersburg (KGAI)	416
Gambrils (F2488, near Bowie)	460	Greater Cumberland Reg (KCBE)	336
Perry Hall (C0608)	353	Martinsburg, WV (KMRB)	279
Natl Arboretum/Reagan Natl (KDCA)	618	Salisbury/Ocean City (KSBY)	512
St. Mary's City (Patuxent NRB KNHK)	650	Westminster (KDMW)	479

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

Pest Predictive Calendar "Predictions"

By: Nancy Harding and Paula Shrewsbury, UMD

In the Maryland area, the accumulated growing degree days (**DD**) this week range from about **279 DD** (Martinsburg, WV) to **650 DD** (St. Mary's City). 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.

Spotted lanternfly – egg hatch **(270 DD)**
Bristly roseslug sawfly – larva, early instar **(284 DD)**
Imported willow leaf beetle – adult emergence **(290 DD)**
Hawthorn leafminer – adult emergence **(292 DD)**
Andromeda lace bug – egg hatch **(305 DD)**
Pine needle scale – egg hatch / crawler **(307 DD)**
Cooley spruce gall adelgid – egg hatch **(308 DD)**
Eastern spruce gall adelgid – egg hatch **(308 DD)**
Spirea aphid – adult/nymph **(326 DD)**Spongy moth (formerly gypsy moth) – egg hatch **(373 DD)**
Holly leafminer – adult emergence **(375 DD)**
Hemlock woolly adelgid – egg hatch (2nd gen) **(411 DD)**
Basswood lace bug – 1st adult activity **(415 DD)**
Emerald ash borer – adult emergence **(421 DD)**
Locust leafminer – adult emergence **(429 DD)**
Honeylocust plant bug – egg hatch, early instar **(433 DD)**
Fourlined plant bug – egg hatch, early instar **(435 DD)**
Lesser peachtree borer – adult emergence (1st gen) **(468 DD)**
Oak erricoccin scale – egg hatch / crawler **(469 DD)**
Maskell scale – egg hatch / crawler (1st gen) **(470 DD)**
Oystershell scale – egg hatch / crawler (1st gen) **(486 DD)**
Minute cypress scale – egg hatch / crawler **(511 DD)**
White prunicola scale – egg hatch / crawler (1st gen) **(513 DD)**
Euonymus scale – egg hatch / crawler (1st gen) **(522 DD)**
Bronze birch borer – adult emergence **(547 DD)**
Bagworm – egg hatch **(602 DD)**
Potato leafhopper – adult arrival **(603 DD)**
Black vine weevil – adult emergence **(607 DD)**
Twospotted spider mite – egg hatch **(627 DD)**
Cottony camellia/Taxus scale – egg hatch **(649 DD)**
Mimosa webworm – larva, early instar (1st gen) **(674 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.

Environmental Horticulture and Sustainable Agribusiness - Applied Technologies/Montgomery College
Summer Classes 2023: ***Summer Session I:*** For further information, contact Stephen Dubik (240) 567-7803. Steve.dubik@montgomerycollege.edu. Register by Web: **www.montgomerycollege.edu**

HORT 135 Stormwater Maintenance (*Lecture and lab meet face-to-face at the* ***Takoma Park Campus***) 1 semester hour. Instructor Rick Scaffidi how to perform inspection, minor repairs and maintenance of plant materials surrounding bio-retention facilities and similar Low Impact Development (LID) techniques according to Montgomery County and Maryland State guidelines. Other topics include planning reading and developing a maintenance plan for bio-retention facilities. Portions of the lectures may be held at outdoors. ***Class meets face-to-face at Takoma Park campus***

Thur. 6/22	CRN 41250	Lecture	8:00 a.m. - 3:15 p.m.
Thur. 6/29 & 8/6	CRN 41251	Lab	8:00 a.m. - 3:15 p.m.

HORT 244 Herbaceous Plant Materials (3 semester hours - *Lecture and portion of lab meets on-line, portions of lab instruction will be offered remotely during the times indicated.)* Explore the world of herbaceous plant materials. We'll cover annuals, perennials, and ornamental grasses and focus on their uses in the landscape. Course requires three mandatory field trips to U.S. Botanic Gardens (06/17/23), Brookside Gardens (07/8/23) and Longwood Gardens (07/22/23). Alternative field trips include tours to McCrillis Gardens and the Demo Gardens at the Germantown Campus. ***Class meets on-line from 6/5 to 8/13/23***

Monday	CRN 40630	Lecture	6:00 – 8:30 p.m.
Monday	CRN 40631	Lab	8:35 – 10:00 p.m.*

- As the course has required field trips class will be shortened to 9:05 pm.

Conferences: Go to the IPMnet Conference Page for links and details on these programs.

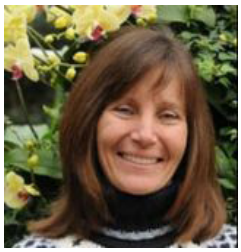
May 24, 2023
IPM Scouts' Diagnostic Session
Location: CMREC, Ellicott City, MD

June 16, 2023
Montgomery County Procrastinator's Conference
Location: Montgomery County Extension Office

June 20, 2023
Cut Flower Program
Location: Castlebridge Farm, Ellicott City, MD

CONTRIBUTORS:

Stanton Gill
Extension Specialist
sgill@umd.edu
410-868-9400 (cell)



Paula Shrewsbury
Extension Specialist
pshrewsb@umd.edu

Karen Rane
Plant Pathologist
rane@umd.edu

Chuck Schuster
Retired, Extension Educator
cfs@umd.edu

David Clement
Plant Pathologist
clement@umd.edu

Andrew Ristvey
Extension Specialist
aristvey@umd.edu

Ginny Rosenkranz
Extension Educator
rosnkrnz@umd.edu

Nancy Harding
Faculty Research Assistant

Fereshteh Shahoveisi
Assistant Professor
fsh@umd.edu

Kelly Nichols
Extension Educator
kellyn@umd.edu

Thank you to the Maryland Arborist Association, the Landscape Contractors Association of MD, D.C. and VA, the Maryland Nursery, Landscape, and Greenhouse Association, Professional Grounds Management Society, FALCAN and USDA NIFA EIP Award # 20217000635473 for their financial support in making these weekly reports possible.
Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.