UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report
for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **May 9, 2025**

In This Issue...

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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Disease Information: David Clement (Extension Specialist) and Ana Fulladolsa (Plant Pathologist and Director, UMD Diagnostic Lab)
Weed of the Week: Kelly Nichols, Nathan Glenn, (UME Extension Educators), and 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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Rose Diseases

By: Ana C. Fulladolsa, David Clement, and Karen Rane

We have noticed several diseases of roses occurring in home and commercial landscapes in Maryland and Washington, DC. The first is black spot of roses, caused by the fungus *Diplocarpon rosae*, which appears as dark brown to black, rounded spots with feathery margins on leaves (Fig. 1). Infected leaves can turn yellow and drop, even with only a few lesions present. The fungus can also occur on canes, initially as red lesions that darken as the fungus matures. Black fruiting structures of the fungus can develop on the tissue. During wet periods, repeated infections can occur and weakened plants can be susceptible to winter injury. The fungus can overwinter on infected leaves and canes.

Last week, Andrew Ristvey reported powdery mildew on an English rose (Fig. 2). White, powdery growth of mycelium and spores of the fungus *Podosphaera pannosa*, can be seen on leaves and stems. Chlorosis and leaf distortion can occur when young leaves are infected with powdery mildew early in the season. Severe disease can lead to stunted growth. The current weather conditions, high humidity and temperatures near 70 ºF, are conducive for fungal growth. The pathogen overwinters as small, black fruiting structures on plant debris.

Management of black spot and powdery mildew involves using resistant cultivars, practices that minimize leaf wetness such as increased spacing between plants and using drip irrigation rather than sprinklers, and sanitation

(good fall cleanup, removing occasional diseased leaves). Resistant cultivars are often featured in rose supplier catalogues and websites. For those growing highly susceptible cultivars, fungicide sprays beginning when foliage first develops are often necessary to protect the plants from infection. Many fungicides are labeled for rose disease management. Fungicides effective for black spot control include captan, and chlorothalonil. For powdery mildew, fungicides such as bicarbonate products and propiconazole are effective. Fungicides effective against both diseases include myclobutanil, azoxystrobin and thiophanate methyl. It is important to rotate products with different modes of action (Group or FRAC codes) to avoid resistance development.

Rose rosette disease is also affecting many roses in the landscape. Symptoms include reddening of the stems and leaves, stunted growth, clustering and proliferation of stems with excessive soft thorns (Fig. 3). Flowers may also abort, and severe infections can lead to the death of plants within two years. Multiflora rose and ornamental roses are susceptible. The disease is caused by rose rosette virus, which is transmitted to plants by eriophyid mites that

Figure 1. Black spot symptoms on rose leaves.
Photo: David Clement, UME

Figure 2. Powdery mildew on rose leaves and buds.
Photo: Andrew Ristvey, University of Maryland.

feed and injure plant tissues, and by grafting. Eriophyid mites are microscopic (Fig. 4) and don't crawl far across the plant, but they can be spread by wind currents to healthy plants downstream, and on clothing and tools. The mites can overwinter inside buds, on attached flower and leaf tissues, and in leaf scars. The virus can move from the initial infection site throughout the whole plant, including the roots. There is no cure for the disease so early detection is critical to prevent further spread within a planting. Infected roses should be uprooted and removed promptly, and remaining roses should be monitored for symptoms. If a planting has multiflora roses, remove them or plant ornamental roses upwind. Avoid using leaf blowers near the roses and use proper spacing. You may also consider mixed plantings with other ornamental species to create a physical barrier.

Figure 3. Rose rosette disease symptoms on rose leaves and stems.
Photo: Jennifer Olson, Oklahoma State University, Bugwood.org.

Figure 4. Microscopic eriophyid mites on rose.
Photo: Karen Rane, UMD-Retired

Mining Bees

John Stuart, Montgomery County Dept. of Transportation, reported that mining bees are active in Ashton, MD. In response to a resident's request, the Montgomery County Department of Transportation, Division of Highway Services, Tree Maintenance Section found a large population of active mining bees. John noted that the bees were left to complete their life cycle. They are active for seveal months early in the season. These bees are good pollinators, so do not do anything for control. Mining bees do not defend their nests and most have stingers that are not able to penetrate human skin. They often show up in areas of thin turf. An option is to renovate the turf to make it less favorable to the bees.

Mining bee burrows are often found where there is exposed soil.
Photo: John Stuart, Montgomery Co. Dept. of Transportation

Hawthorn Leafminer

Chris Ward, John B. Ward & Co., found hawthorn leafminers damaging foliage of Hawthorn 'Winter King' in Bryn Mawr, PA this week. The adult sawflies emerged when serviceberry was in bloom. The larvae are now feeding and causing the blotch mines which are often found on the tip or edges of leaves. The larvae produce a lot of frass with these mines. This sawfly overwinters in the pupal stage in the soil.

The damage can resemble a fungal infection or leaf scorch. To check for sawfly, hold leaves up to the light and see if larvae are present.

Although the damage is unsightly, control measures are usually not necessary. There is only one generation and new foliage early in the season helps to hide the insect damage.

Hawthorn leafminer damage can be unsightly, but this sawfly usually does not impact the overall health of the tree.
Photo: Chris Ward, John B. Ward & Co.

Spotted Lanternfly Update

By: Paula Shrewsbury

Spotted lanternfly eggs continue to hatch, and 1st instar nymphs are active! We had several additional reports of spotted lanternfly (SLF, *Lycorma delicatula*) eggs hatching or 1st instar nymph activity this past week.

First instar spotted lanternfly nymphs foraging on the underside of a leave.
Photo: P.M. Shrewsbury, UMD

Here are the dates and locations that had reports of SLF activity: May 3 – Columbia and Frederick, MD; May 4 – Rockville, MD; May 5 – Mount Airy, MD; May 6 – West Laurel, MD; May 7 – Lisbon / Woodbine area and Columbia, MD. Host plants included tree-of-heaven, pin oak, Silver, Norway and red maple, camelia, oak leaf hydrangea, and rose. Thanks to all of you who have kept us informed of what you are seeing in the field!

If you look at the degree day (DD) accumulations listed at the end of the newsletter you will see that most locations have reached or surpassed 270 DD, the number of degree days that let us know it's time to monitor for SLF egg hatch. I suspect, most SLF eggs have hatched. **If you see SLF eggs hatching or nymphal activity, please let us (pshrewsbury@umd.edu and sklick@umd.edu) know when, where, and on what host tree (if you know it) you see egg hatch.**

The Maryland Department of Agriculture (MDA) is monitoring SLF egg hatch and activity. You can **report SLF to MDA** at this link (note that a photograph is required): https://mda.maryland.gov/plants-pests/Pages/spotted-lantern-fly.aspx

What should you do with all the SLF nymphs that will be on plants soon (from the 5/2/2025 IPM Report)*?* It depends on the circumstances. *In landscapes*, at this time of year when SLF are in early nymphal stages on established trees and other vegetation you likely do not need to do much. The nymphs are small and do not produce much honeydew and they move a lot among different types of plants and vegetation. So, if you treat one plant, SLF may show up on a different plant. *In landscapes and nurseries*, if you are moving plants or other materials with SLF nymphs, then you need to follow state quarantine and treatment regulations which involves removing / getting rid of SLF on plants before movement. For information on chemical and other control options for SLF, and their biology and ecology, go to this Penn State Extension SLF Management Guide. Be sure to consider pollinator and natural enemy protection when using chemical options.

Early 2025 Beech Leaf Disease Update

By: David L. Clement

This spring has brought increased reporting of Beech Leaf Disease, (BLD). Maryland Department of Agriculture Forest Pest Management (MDA FPM) specialists have been surveying sentinel plots across the state for several years and responding to reports of trees showing symptoms of beech leaf disease. The last incidence map we have is from this past December (see map). This disease, caused by the foliar nematode *Litylenchus crenatae* subsp. *mccannii*, is causing significant dieback, decline and death of landscape and forest beech trees from the Great Lakes region, through Pennsylvania and New York through New England.

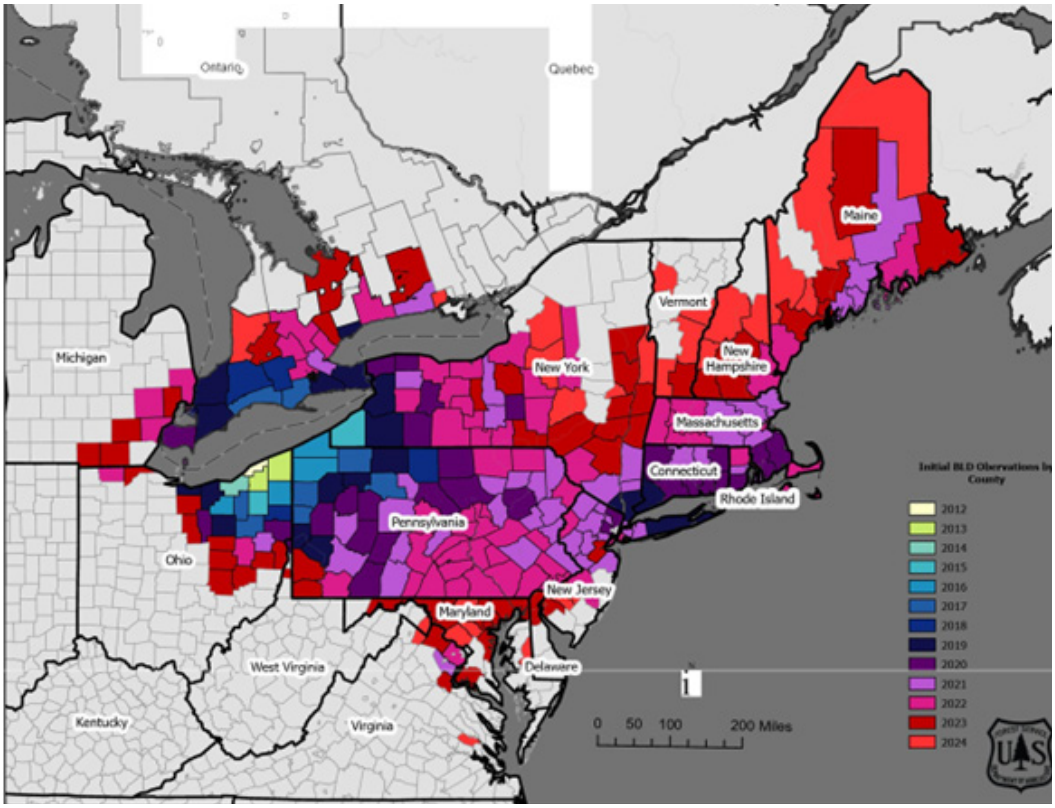
The characteristic symptoms of early beech leaf disease are dark stripes between leaf veins as the leaves emerge. Later symptoms include thickening, curling and distortion of infected leaves. At this point in the growing season, the nematodes are primarily in the new leaf tissue.

Management

We are still learning about management of this disease and how it is spread. Early research from Bartlett has shown promising results with Arbotect, (Thiabendazole). See the article 'Thiabendazole as a Therapeutic Root Flare Injection for Beech Leaf Disease Management" at https://doi.org/10.48044/jauf.2025.007.

You can find more information on beech leaf disease at the following links: University of Maryland Extension: https://extension.umd.edu/resource/beech-leaf-disease-maryland/

To report trees with suspected beech leaf disease, contact MDA Forest Pest Management at 410-841-5922.



USFS Distribution Map of Beech Leaf Disease in our area.

Oak Treehoppers

Marie Rojas, IPM Scout, is finding oak treehoppers on sawtooth oak this week in Frederick County. Adult females guard their nymphs to protect them from predators. There are two generations per year. They do not cause much damage, so control is not necessary.

Oak treehopper nypmphs are often found in groups on tree branches in the spring.
Photo: Marie Rojas, IPM Scout

Giant Bark Aphids

Alex Palacios, Casey Trees, found giant bark aphids on *Tilia americana* in D.C. this week. This aphid is the largest species found in the United States. They cluster in large groups on tree trunks. These aphids do not cause much damage, so control is not necessary. Look for predators such as lady beetles and syrphid flies.

**Giant bark aphids clustering on a tree trunk.
Photo: Herbert A. 'Joe' Pase III, Texas A&M Forest Service, Bugwood.org**

Crapemyrtle Aphids

Colin Campbell, Bartlett Tree Experts, found crapemyrtle aphids in Chevy Chase this week. Sheena O'Donnell, UME, found them in University Park on May 5. All stages of this aphid species are often present at the same time, so it can reproduce and spread quickly. Monitor aphid populations on crape myrtles closely to assess if control measures are needed. We are finding predators such as lady beetles, syrphid flies, and lacewings on trees. If control measures are necessary, use horticultural oil or Endeavor for minimal impact on the beneficial insects.

**This crapemyrtle aphid population of adults (which have dark wing edges) and nymphs was high enough to cause chlorosis and leaf distortion.
Photos: Colin Campbell, Bartlett Tree Experts**

European PIne Sawfly on Mugo Pine

Ben Morris, SavATree, is finding European pine sawfly larvae on Mugo pine in New Jersey this week. Look for the larvae on two and three needle pines. There is one generation per year. It is best to target early season feeding activity. If possible, manually remove the larvae. For small populations, pruning can help reduce tnumber of sawfly larvae. Spinosad or horticultural oil can be applied if necessary.

When disturbed, sawfly larvae raise both ends to discourage predators.
Photo: Ben Morris, SavATree

Cottony Camellia/Taxus Scale

Sam Fisher, Bartlett Tree Experts, found eggs of cottony camellia/Taxus scale on hollies in D.C. on April 29 and May 8. In warmer areas like D.C., we are likely very close to egg hatch. We predict that egg hatch occurs at 649 degree days (DD). Remember that this DD number is an estimate. If your area is close to this level of degree days, then you need to be monitoring plants closely.

When active, target crawlers with Insect Growth Regulators (IGR) such as pyriproxyfen or buprofezin

We are getting close to egg hatch of cottony camellia/Taxus scale, so monitor susceptible plants such as holly, *Taxus*, and camellia closely.
Photo: Sam Fisher, Bartlett Tree Experts

Red Aphids on a Diversity of Host Plants

By: Paula Shrewsbury

On May 7th, Caitlin Beckjord (Howard Co. Rec. and Parks) found red aphids on the underside of leaves of black-eyed Susan (*Rudbeckia hirta*). Most commonly red aphids on plants in the Compositae / Asteraceae are a species of aphid in the genera *Uroleucon*. There are over 226 species of *Uroleucon* aphids worldwide and most are associated with plants in the Asteraceae or Campanulaceae families. Yikes! The aphid on black-eyed Susan is most likely *Uroleucon rudbeckiae*, with the common name goldenglow aphid, and is widely distributed in North America.

I have seen a similar aphid on cup plant, *Silphium perfoliatum* (Asteraceae) with an impressive population of red aphids, most likely *Uroleucon ambrosiae* (brown ambrosia aphid). Accompanying the aphids were a diversity of natural enemies having a feast. Click here for more information, pictures and videos on this aphid.

An abundant population of *Uroleucon* sp. of aphid (likely *U. rudbeckiae*, goldenglow aphid) on the underside of black-eyed Susan (*Rudbeckia hirta*) foliage.
Photo: Caitlin Beckjord, Howard County Recreation and Parks

Colonies of *Uroleucon ambrosiae* (brown ambrosia aphids) are attracting and feeding legions of predators on the foliage of *Silphium perfoliatum*. Although an adult flower fly was not sighted, her egg (inside the circle) in the aphid colony confirms her visit.
Photo: M.J. Raupp, UMD

Lecanium Soft Scale: Eggs under females

By: Paula Shrewsbury

Marie Rojas (IPM Scout) has been busy finding soft scales and monitoring their development in nurseries. In general, most soft scales have one generation per year and eggs hatch and crawler activity occurs in the spring except for a few species (Tuliptree and Magnolia soft scale). In Montgomery County MD this past week Marie found European fruit lecanium scale, *Parthenolecanium corni*, a native soft scale, on bald cypress, *Taxodium distichum*. Although Taxodium or other evergreens are not common host plants of European fruit lecanium scale, it is known to occur. There are over 50 common hosts of this scale listed and include maples, ornamental fruit trees (*Malus* spp., *Prunus* spp.), and many other flowering and fruiting trees and shrubs. In Montgomery County on Taxodium eggs were present under plump female scales, and Marie noted there was not much in the way of honeydew. **European fruit lecanium scale egg hatch and crawler activity are predicted around 904 DD.** Be sure to start monitoring host trees with this scale if your area is close to this number of DDs.

European fruit lecanium on *Taxodium*. Females are large and have eggs under their bodies.
Photo: Marie Rojas, IPM Scout

Marie also noted oak lecanium scale on willow oak and similarly eggs were present under plump females. **Eggs of oak lecanium scale are predicted to hatch and crawler activity start around 789 DD.**

Good options for suppressing lecanium and other soft scales are to target the crawler stages with insect growth regulators such as pyriproxyfen or buprofezin.

Oak lecanium female scales look very plumped up from feeding on plant sap and producing eggs under their bodies.
Photo: Marie Rojas, IPM Scout

Oak lecanium scale eggs on the underside of the female body and scattered within the hand.
Photo: Marie Rojas, IPM Scout

Gymnosporangium Rusts

Gymnospornangium rusts continue to be active the spring. Mark Schlossberg, ProLawn Plus, Inc., found cedar quince rust on juniper in Parkville this week. Marie Rojas, IPM Scout, is finding cedar apple rust on *Juniperus virginiana* in Montgomery County. She noted that the galls were in the gelatinous stage when she scouted. Marie noted that she is not seeing rust on serviceberry or hawthorn at this time. Infection periods will continue througout May so roseaceous plants still need to be treated.

Under the right moisture and temperature conditions, this cedar quince rust canker with become gelatinous and release spores.
Photo: Mark Schlossberg, ProLawn Plus, Inc.

This gelatinous rust gall is releasing spores at this time.
Photo: Marie Rojas, IPM Scout

Spiny Ash Sawfly on Fringe Tree

By: Paula Shrewsbury and Nancy Harding, UMD

This past week Nancy Harding (Entomology, UMD) was working in a landscape in Bowie, MD and noticed defoliation on the foliage of a white fringe tree, *Chionanthus virginicus* (Family: Oleaceae). At this time of year, white fringe trees are in full bloom and look amazing. After some scouting, Nancy found the culprit. Then after some great diagnostic efforts, she determined that the defoliator was likely the **spiny ash sawfly, *Eupareophora parca*** (Hymenoptera: Tenthredinidae). Young larvae are light green and late instar larvae have a wide dark band along their top (dorsal) side with yellow along the sides. All larval stages have spines which become darker and more pronounced in the later larval stages.

The spiny ash sawfly is known to occur in two ranges, in the eastern United States and southeastern Canada, and in coastal California and Oregon. It has one generation per year and overwinters as pupae in the ground. Larvae are active from around late March through early July. Eupareophora is known to feed on *Fraxinus americana* (white ash), *Fraxinus nigra* (black ash), *Fraxinus oregona* (Oregon ash), *Fraxinus pensylvanicus* (green ash), *Carya illinoensis* (pecan), and *Chionanthus* (fringe tree). Fringe tree are in the same family as ash (Oleaceae) so it is not surprising to see this sawfly feeding on fringe tree too. Spiny ash sawfly has been reported as a pest on ash in some urban locations.

Recommendation: If densities of spiny ash sawfly are relatively low and reachable, hand remove and destroy them. If large numbers of sawfly and damage are found, treatment with spinosad or another labeled product should reduce populations.

For more information and images of damage and different life stages of *Eupareophora parca* go to:
https://www.inaturalist.org/taxa/495096-Eupareophora-parca
https://idtools.org/sawfly/index.cfm?packageID=89&entityID=819
https://www.jungledragon.com/specie/24472/spiny_ash_sawfly.html

Early instar spiny ash sawfly, *Eupariophora parca*, and feeding damage on white fringe tree.
Photo: N. Harding, UMD

Late instar spiny ash sawfly, *Eupariophora parca*, larvae.
Photo: M. Lankford (CC By-NC), iNaturalist

Ambrosia Beetle Update

Ambrosia beetle counts were down somewhat this week (6 trapped at CMREC, Clarksville, MD and 19 trapped in Gaithersburg, MD). We haven't been able to identify these yet. Given the weather and last week's beetle activity, I suggest closely monitoring your susceptible host trees and consider protective bark treatments. We will continue to run the ambrosia beetle traps and keep you informed on what we find.

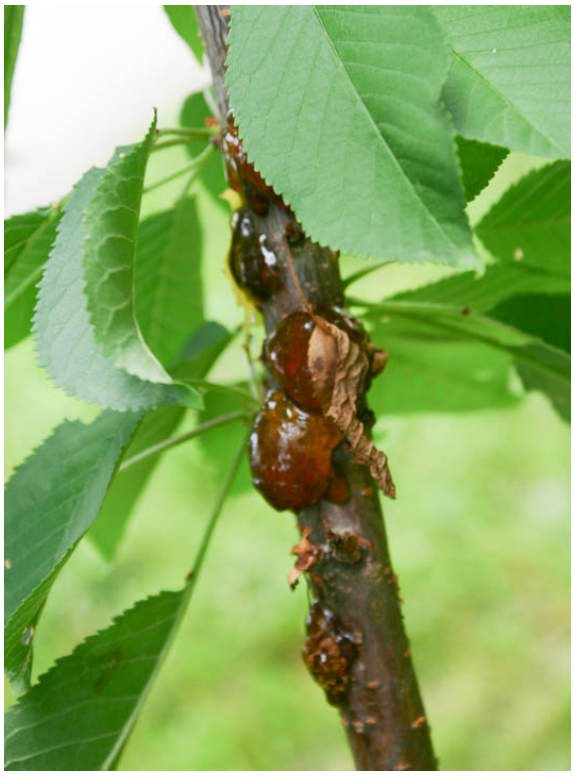
If anyone finds ambrosia beetle activity in trees, please let me know (pshrewsbury@umd.edu and copy sklick@umd.edu) where, when, and on what type of tree and send pictures.

Note the characteristic frass tubes of ambrosia beetles and the frass at the base of the tree on May 6.
Photo: David Freeman, Oaktree Property Care

Clearwing Moth Peach Tree Borers: Two you should know about

By: Paula Shrewsbury

There are several common species of clearwing moths (Family: Sessidae) whose caterpillar larvae are important wood boring pests in ornamental (and some fruit) trees. Today I want to discuss the two major species that attack trees and shrub in the *Prunus* genera. The common names of these "peach tree borers" make this somewhat confusing and I will emphasize the differences between the two.



Sap oozing from bark caused by lesser peachtree borer.
Photo: Stanton Gill, UME

Synanthedon pictipes, common name **lesser peach tree borer**, attacks host trees at branch crotches and upper trunk . There are two generations per year. First generation adults begin to fly around 468 DD (we do not have DD for the second generation). For many areas your DD accumulations are right around 468 DD or past already (see the DD list at the end of this IPM Report). Preferred hosts include *Prunus* spp. especially peach, almond, cherry, plum, and charry laurel.

Synanthedon exitiosa, common name **peach tree borer**, attacks trees and shrubs at the root crown near and below the soil line and especially likes trees that are mulched too high. There is one generation per year and adults begin to fly around 1181 DD. Areas in MD are not near these DD accumulations yet. Preferred hosts include *Prunus* spp. especially Japanese flowering cherry, cherry laurel, and purpleleaf sand cherry.

Monitoring and Management: For all clearwing borers, it is important to know when adult moths emerge from trees to time optimal control measures. When adult moths begin to fly, they mate and then the females lay their eggs on the bark of host trees. Egg laying (oviposition) usually starts about 10 days after the first adults are seen flying. The eggs hatch and the newly emerged larvae bore through the bark down into the wood. Once the larvae are in the wood, they are very difficult to control. Optimal control involves a timely protective spray on the bark (target area of bark to protect depends on borer species) of the host tree so when the larva hatches and starts to chew the wood, it will be poisoned.

Timing adult emergence / flight - In addition to using DD accumulations to estimate adult flight, pheromone traps are also recommended (usually wing-type sticky traps) especially in areas where you have high value *Prunus* trees and shrubs. Pheromones for specific species of clearwing borers (males are attracted) can be purchased and placed in the pheromone sticky traps. The baited traps should be hung from trees relatively near host plants. Note that often the pheromone is attractive to more than your target species so you should try to identify the moths being caught. The goal is to protect your trees within ~10 days from the time you start catching male moths in the pheromone traps.

Protecting the bark – Within 10 days of when adult moths begin to emerge and fly, a protective spray should be applied. Chlorantraniliprole (ex. Acelypryn) is a reduced risk insecticide and shown to give good control of clearwing borers. There are also other products labeled for clearwing borer bark sprays. If you are trying to control ***S. pictipes*** **(lesser peach tree borer)** protective sprays should target branch crotches and trunks of trees (ex. you don't need to spray out branches) where the females lay eggs. For ***S. exitiosa*** **(peach tree borer)** protective sprays should target around the root crown / soil surface.

John Lasbury (Lasbury Tree) reported that on Wednesday April 30th he hung a pheromone trap out to monitor for first generation *S. pictipes* (lesser peach tree borer) and collected it on Friday May 2nd and found between 60-70 adult clearwing moths in the sticky trap. This was in the Clarksville area which was around 360 DD getting close to the 468 DD indicator (see chart at end of this IPM Report), and Hawthorne was in bloom (a plant phenological indicator for *S. pictipes* (lesser peach tree borer) (see Pest Predictive Calendar). I would recommend that susceptible hosts in that area be treated with a protective insecticide now.

Clearwing moth sticky pheromone trap with adult moths indicating adults are flying and host trees should be protected.
Photo: John Lasbury, Lasbury Tree

A dead Otto luyken cherry laurel from Fairfax, VA. When pulled out of the ground the cause of death was clear - *Synanthedon exitiosa* (clear-wing peach tree borer).
Photo: David Freeman, Oaktree Property Care

Adult male *Synanthedon pictipes* (lesser peach tree borer).
Photo: L McDaniel, BugGuide #772369)

Crapemyrtle Bark Scale is Active

By: Paula Shrewsbury

Sheena O'Donnell (CMREC Research Tech., UME) has been monitoring crape myrtle trees for crapemyrtle bark scale (CMBS), *Acanthococcus lagerstroemia*, in Univeristy Park, MD. This week she noted 2nd instars, and female ovisacs with a mix of females only under them and others with females with eggs. Egg hatch and crawler activity CMBS is reported to occur around 724 DDs. Luke Gustafson (Davey Tree Expert Company) reported he saw lots of crape myrtles (with CMBS) showing noticeable signs of honeydew. I have observed several crape myrtles on the UMD College Park campus that have had high CMBS populations for a few years. Last year the *Hyperaspis* lady beetle predator (and likely others) reduced the CMBS population significantly. Sadly, looking at several of these trees this spring I see they are suffering from significant dieback.

A close-up of several egg-sacs of female CMBS and encrustations of black sooty mold covering a branch. Photo: M.J. Raupp, UMD

Recommendations: Given the above observations, I recommend you monitor crape myrtles trees. Be sure to use a hand-lens or other magnification. Live CMBS will be pink to purple in color and will gush this color when you squish them, dead ones won't gush. Depending on the density of the population and how many trees you are managing, you can use mechanical control such as a soft scrub brush and water to physically wash the scales off the branches and trunk of the tree. There are also multiple chemical controls that are available for CMBS suppression. These include systemics such as dinotefuron, or contacts such as horticultural oil or other labeled products. Be sure to follow label directions to protect pollinators and get optimal control. I found a very good fact sheet on CMBS from Clemson Cooperative Extension that I suggest anyone who is dealing with CMBS should read. It provides a thorough description of CMBS biology and management.

Hundreds of pink eggs from beneath the CMBS egg sac were exposed. If you are seeing lots of egg-sacs with eggs, then keep monitoring for crawlers and target treatments for that stage. Photo: M.J. Raupp, UMD

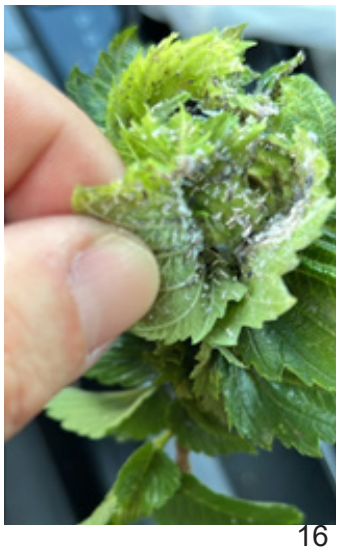
White, wax covered larva of a *Hyperaspis* lady beetle foraging on crapemyrtle bark scale. Be sure to conserve these and other natural enemies feeding on your crape myrtle bark scale.
Photo: M.J. Raupp, UMD

Crape myrtle trees on the UMD College Park campus taken the first week of May showing significant dieback. They have had a high population of CMBS for the previous few years.
Photo: P.M. Shrewsbury, UMD

Woolly Apple Aphid, *Eriosoma lanigerum*, on Elm Continues to be Active

James LaNore (MRW Lawn) found wooly apple aphid on Elm causing some significant distortion along with the abundance of wax and aphids. See the earlier report for more information on woolly apple aphid.

There are several common predators that feed on woolly apple aphids: lacewing larvae, lady beetles, and syrphid fly larvae. In addition, there is a native parasitic wasp (*Aphelinus m*ali) and a predatory plant bug (Miridae), *Deraeocoris aphidiphagus*, which can be commonly found in the curled elm leaves snacking on the aphids. If control is warranted, horticultural oil and insecticidal soap can be used which should have a reduced impact on beneficial insects if they are present.



Woolly apple aphids continue to be active on elm (overwintering host) where they produce an abundance of wax and honeydew, and cause leaf distortion.
Photos: Jame LeNore, MRW Lawns

Aphids on Roses and Spirea

Aphids on various plants continue to be active this week. Sam Fisher, Bartlett Tree Experts, found aphids on roses in D.C. on April 29. We are finding aphids on roses here at the research center. A lady beetle larva was feeding on a winged aphid on a rose bud. We are also seeing adult seven spotted lady beetles and pink spotted lady beetles. Elaine Menegon, Good's Tree and Lawn Care, found aphids on spirea in Hershey on May 8.Elaine noted that lady beetles were feeding on these aphids. Based on all of the reports we are receiving, beneficial insect populations seem to be high this year. It is important to check for predators among aphid populations to determine if any control measures are necessary. Often, beneficials bring these early season aphid populations down on their own.

Lady beetles that are present on these plants can help bring this spirea aphid population down. Elaine Menegon, Good's Tree and Lawn Care

More Predators

Marie Rojas, IPM Scout, found *Hyperaspis* sp. lady beetle larvae feeding on scale this week in Montgomery County. The adult is called the twice stabbed lady beetle because it is black wtih one red spot on each elytra.

James Leach, Casey Trees, and Marie Rojas, are both finding egg hatch of wheel bugs this week. Marie also found a parasitic wasp on stink bug eggs.

***Hyperaspis* sp. lady beetle larvae feeding on scale.**
Photo: Marie Rojas, IPM Scout

A wasp parasitoid is attacking a group of stink bug eggs.
Photo: Marie Rojas, IPM Scout

Beneficial of the Week
By: Paula Shrewsbury

Who eats spider mites?

We have had a few reports of spider mites this season such as the cool season mites - spruce spider mites that feed on narrow-leave evergreens and Southern red mites that feed on broad-leave evergreens. I imagine when the weather warms up two-spotted spider mite will start its activity on deciduous plants.

A predatory mite (right) in the family Phytoseiidae feeding on a two-spotted spider mite (left).
Photo: Jack Kelly Clark, UC Statewide IPM Program, University of California)

There are numerous predators that consume spider mites such as predatory mites, lady beetles, dusty wings, lacewings, minute pirate bugs, and predatory thrips. Lady beetles and predatory mites are the most common predators of spider mites; however, it is usually a complex of natural enemies that often have the greatest impact on pest insects and mites. Several species of **predatory mites** are natural enemies of plant feeding mites. Many of the predatory mites that attack spider mites are in the family Phytoseiidae. Predatory mites have needle-like chelicerae (mouthparts) that they insert into spider mite nymphs, adults, and eggs and remove the fluid from their prey. Phytoseiid mites are about the same size as spider mites, but their bodies are teardrop or pear shaped, and they have fewer hairs on their bodies. They tend to be a clear yellow to orange color (depending on species and sometimes prey item) and shiny. Relative to plant feeding mites, phytoseiids have longer legs and run faster which is adaptive since they must forage and hunt for their food. Predatory mites occur in nature, and they can be purchased commercially and released (a practice known as augmentation biological control). Most documented success with augmentative release of predatory mites has been in indoor environments such as green houses or conservatories. However, in outdoor environments naturally occurring predatory mites are believed to be very effective biological control agents in ornamental landscapes and nurseries. Integrating floral resources

Spider mite destroyer adult among shed skins and eggs of spider mites.
Photo: M.J. Raupp, UMD

into outdoor environments should provide alternative food for naturally occurring or augmented predatory mites and help to retain them in the desired habitat.

Spider mite destroyer larva among shed skins and active spider mites. Photo: UC Statewide IPM Program, University of California

Also important to the success of predatory mites is the selection and use of pesticides that have minimal impact on predators to help in the conservation and build-up of these natural enemies. Many pesticides in the pyrethroid class are broad spectrum, long residual products known to have long term detrimental impacts on predatory mite and other natural enemy populations. Other miticides such as those on the "EPA reduced risk" list such as acequinocyl (ex. Shuttle), bifenazate (ex. Floramite), hexythiazox (ex. Hexygon), fenpyroximate (ex. Akari), and others, or horticultural oil (follow label instructions) have been shown to have reduced or little impact on predatory mites. It may take a year or two of selective use of pesticides to build up effective predatory mite populations. This practice will also help to conserve other natural enemies of spider mites and other pest insects.

Assisting spider mite destroyers and predatory mites are alligator-like lacewing larvae. Photo: M.J. Raupp, UMD

Another frequently observed and voracious predator of spider mites is a lady beetle referred to as the **spider mite destroyer**, *Stethorus punctillum* (Coccinellidae). They feed as adults and larvae on a variety of spider mite species. Spider mite destroyer adults are tiny (less than 2mm), somewhat hairy (light-colored fine hairs on front wings), black lady beetles. Adult females will lay eggs by scattering them singly on foliage infested with spider mites. Spider mite destroyer eggs hatch and small grayish-black larvae with numerous fine hairs begin to feed voraciously on the various life stages of spider mites. It takes about 3 weeks for spider mite destroyers to go from egg to adults. Adult females usually live 1 to 3 months and will each lay 100 to 300 eggs. When monitoring spider mites and their predators, be sure to look for spider mite destroyer pupa or empty pupal cases which are black to reddish in color, in addition to the eggs, larvae and adults. All life stages are usually found on the underside of foliage. Spider mite destroyers can build up to high populations when spider mites are abundant. These little lady beetles can significantly reduce spider mite populations and their damage to plants, especially when in conjunction with predatory mites and other spider mite predators.

Select and implement IPM practices that will give these good guys a chance to increase their populations and decrease spider mite densities and damage.

Minute pirate bugs (right) suck the life from many small pests including lace bugs (left) and spider mites.
Photo: Ada Szczepaniec, UMD

Weed of the Week

By: Kelly Nichols

Canada thistle (*Cirsium arvense*) is starting to rear its ugly head, especially in unmanaged areas. It can be found in many locations, so be aware of it and make note of where it is found (Figure 1). 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. Both the stem and flowers on Canada thistle will be spineless. (Figure 2). Bull and musk thistle have spines/prickles on the stem and flowers. Canada thistle's flowers are purple (Figure 3). 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 (Figure 4).

Figure 1. Canada thistle grows in many different types of areas.
Photo: Chuck Schuster, UME Ag Agent, Emeritus

Figure 2. Canada thistle stems have no spines.
Photo: Rob Routledge, Sault College, Bugwood.org

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; be sure to use the correct formulation for dry and damp areas. Do not spray too frequently, as one wants the next generation to emerge before application. Cultural controls include fertility management and maintaining a dense turf, but be mindful of nitrogen applications, as excess nitrogen will increase weed growth. A high mowing

height, which allows shading of newly germinating seeds, is an effective management tool in turf. Mowing during flowering will also assist in preventing seed production. If using a combination of mowing and herbicide applications, it does not matter which one comes first; however, wait at least a week in between the two in order to allow for regrowth after mowing or the herbicide to be effective.

Figure 3. Canada thistle has purple flowers.
Photo: Rob Routledge, Sault College, Bugwood.org

Figure 4. Canada thistle does not have a basal rosette. Photo: Chuck Schuster, UME Ag Agent, Emeritus

Figure 5. Young Canada thistle plant. Photo: Chuck Schuster, UME Ag Agent, Emeritus

Plant of the Week

By: Ginny Rosenkranz

Aesculus pavia or red buckeye is a native small tree or large shrub that grows 12-25 feet tall and wide. These plants prefer to grow in part sun with afternoon shade, and medium to moist, well drained soils. Red Buckeye is a deciduous plant with shiny dark green palmately compound leaves that grow opposite each other on a stem. Each leaf has 5-7 leaflets that grow 4-8 inches long and 2-4 inches wide, with the top shiny and the underside of the leaves slightly tomentose or fuzzy. As the plants mature, they form a clump with an uneven crown. In early autumn the leaves turn red and fall. In April through May the plants bloom for almost a month with bright red to orange red tubular flowers that grow 6-10 inches long in upright clusters. Each flower is 1-1 ½ long tube with 4-5 petals at their tips that attract bees, butterflies, Ruby throated hummingbirds and other pollinators. The fertilized flowers develop in the autumn into smooth round light brown seed capsules the hold 1-3 seeds that are called buckeyes. The seeds are poisonous to most wildlife but the squirrels love them. All parts of the tree are poisonous which makes them tolerant of deer. Plants thrive in USDA zones 4-8, and can be planted in a Rain Garden, as a specimen tree or a hedge. No insects are listed as problems, and diseases only lists leaf blotch.

Flower and foliage of red buckeye.
Photo: Ginny Rosenkranz, UME


Red buckeye in bloom in the landscape.
Photo: Ginny Rosenkranz, UME

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 **360 DD** (Clarksville) to **711 DD** (Nat'l Arboretum/Reagan Nat'l). 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.

Spirea aphid – adult / nymph **(326 DD)**
Lilac borer – adult emergence **(350 DD)**
Melon aphid – adult / nymph **(351 DD)**
Spongy moth – egg hatch **(373 DD)**
Holly leafminer – adult emergence **(375 DD)**
Hemlock woolly adelgid – egg hatch (2nd gen) **(411 DD)**
Basswood lace bug – first 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 (oak felt 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)**
Potato leaf hopper – adult arrival **(603 DD)**
Black vine weevil – adult emergence **(607 DD)**
Twospotted spider mite – egg hatch **(627 DD)**
Bagworm – egg hatch **(635 DD)**
Cottony camellia/Taxus scale – egg hatch / crawler **(649 DD)**
Mimosa webworm – larva, early instar (1st gen) **(674 DD)**
Juniper scale – egg hatch / crawler **(694 DD)**
San Jose scale – egg hatch / crawler (1st gen) **(723 DD)**
Crapemyrtle bark scale – egg hatch / crawler (1st gen) **(724 DD)**
Calico scale – egg hatch / crawler **(765 DD)**
Oak lecanium scale – egg hatch / crawler **(789 DD)**
Rhododendron borer – adult emergence **(815 DD)**
Japanese maple scale – egg hatch / crawler (1st gen) **(829 DD)**
Dogwood borer – adult emergence **(830 DD)**
European elm scale – egg hatch / crawler **(831 DD)**
European fruit lecanium scale – egg hatch / crawler **(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 7, 2025)

Annapolis Naval Academy (KNAK)	470	
Baltimore, MD (KBWI)	530	
Belcamp (FS836)	419	
Clarksville (001MD)	360	
College Park (KCGS)		531
Dulles Airport (KIAD)	529	
Ft. Belvoir, VA (KDA)		596
Frederick (KFDK)	454	
Gaithersburg (KGAI)	507	
Greater Cumberland Reg (KCBE)	429	
Martinsburg, WV (KMRB)	454	
Millersville (MD026)	499	
Natl Arboretum/Reagan Natl (KDCA)		711
Perry Hall (C0608)	416	
Salisbury/Ocean City (KSBY)		496
St. Mary's City (Patuxent NRB KNHK)		686
Westminster (KDMW)		570

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

Conferences

Upcoming IPM Scouts' Diagnostic Sessions (afternoon)
June 17, 2025, July 30, 2025, and August 26, 2025
Location: CMREC, Ellicott City, MD

June 18, 2025
Eastern Shore Pesticide Recertification Conference via Zoom

June 24, 2025
Stanton Gill Symposium and Lab Dedication
Location: CMREC, Ellicott City
Co-sponsors: University of Maryland Extension and Maryland Nursery, Landscape, & Greenhouse Association

June 27, 2025
Pesticide Recertification Conference
Location: Montgomery County Extension Office, Derwood, MD
Registration information coming in a few weeks.

September 11, 2025
MNLGA Field Day
Location: Raemelton Farm, Adamstown, MD

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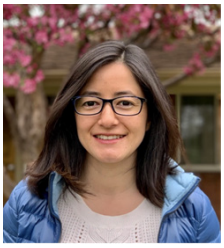
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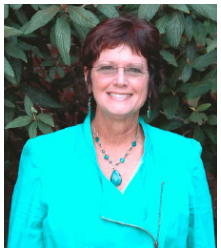
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