UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **August 16, 2024**

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

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Disease Information: Karen Rane (Plant Pathologist), David Clement (Extension Specialist) and Fereshteh Shahoveisi (Turf Pathologist)
Weed of the Week: Chuck Schuster (Retired Extension Educator), Kelly Nichols, Nathan Glenn, and Mark Townsend (UME Extension Educators)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/ Somerset Counties)
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Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Rain - What a Relief

By: Stanton Gill

In Central Maryland, we received close to 5” of rain on Thursday and Friday. This greened up lawns, flower plantings that were looking stressed, brightened up tree foliage, and of course, helped weeds take off.

This is all wonderful, but the damage from the early high temperatures of June throughout July into early August have taken a toll. The loss rate of plants in marginal health sustained such damage it will be difficult to recoup. Hopefully, we are through the worst of the summer heat and plant material will fair better.

Pest Predictive Calendar

Summer Stress on Lawns

By: Geoffrey Rinehart, Institute of Applied Agriculture, UMD

Between the droughty conditions and the heat, this summer has been an especially stressful one for lawns. Cool-season grasses like tall fescue naturally have fewer roots in the summer. This summer's dry conditions and heat have taken a toll on root systems and sent many un-irrigated lawns into dormancy. The remnants of the tropical storm that passed through the area last week helped to alleviate the drought, but some lawns experienced wet wilt. This is a situation where moisture in the soil is adequate, but the grass doesn't have sufficient root functionality to use the water and the symptoms look like drought.

There are a lot of brown turf areas this month due to this summer's extended dry and hot period. Photo: Mark Schlossberg, ProLawn Plus, Inc.

As cooler temperatures prevail, hopefully many lawns will start to recover, but the reality is that the majority of lawns in our area will need to be overseeded or undergo renovation. Now is the time to start planning for these activities during September. For a lawn "rejuvenation" (not quite a full-scale "renovation"), remember that de-thatching to remove the dead leaf debris and exposing the soil surface to create good seed-to-soil contact is important to encouraging good establishment. It's also helpful to aerate in conjunction with overseeding to provide a "niche" for seeds to be protected, but in order for aerification to be most effective make sure there is a moderate level of soil moisture so the aerator doesn't "bounce along" the soil. Using a thin layer of compost topdressing helps retain moisture for the new seeds to germinate. Lastly, using varieties that have been identified for superior performance via the UMD turfgrass variety trials is important as these varieties will be more persistent and resilient in the long-term. The MD-VA Recommended Varieties list can be found on the Maryland Turfgrass Council website.

Deer Are Very Active in August

By: Stanton Gill

We are seeing many young fawns that have been pushed out by the adult females from the care in preparation for mating season. You may find these young fawns wandering out onto roadways with little experience with cars and truck traffic. This results in a lot of accidents. We are also seeing male deer with felt on their antlers next to roadways. Be very alert in morning hours and evening hours for deer entering roadways.

Locust Borer

By: David Phan, UME Intern

Locust borers (*Megacyllene robiniae*) are going to be active this month and through September. They are a pest of only black locust (*Robinia pseudoacacia*)and not honeylocust in their larval stage. Adults locust borers will lay eggs in cracks of tree bark late summer through early October. The eggs hatch and the larvae bore into the bark. The tunnels created by the larvae will result in black locust branches to crack or break off, along with disrupting the flow of nutrients and water, limiting the new growth. These tunnels are also prone to infections for fungal spores. Locust borers typically attack weakened or stressed trees. The best control for these borers is to keep the tree healthy and well-watered. The adult black locust beetle is often seen nectaring on late season flowers such as goldenrod and boneset.

At this time of year, look for adult locust borers nectaring at flowers, such as this boneset flower.
Photo: Suzanne Klick, UME

Black locust is not necessarily a desirable tree in home landscapes, with its aggressive root system and thorns on the branches, but is being used in small forested areas. It is a very fast growing tree but generally relatively short-lived. The locust borer in this article just damages black locust and is not a pest of honeylocust which is more commonly used in landscapes.

Cypress Twig Galls

By: David Phan, UME Intern

Cypress twig gall midges (Taxodiomyia cupressiananassa), are tiny flies that are tan with clear wings and orange-red abdomens (female) or tan-orange abdomens (male). The females will lay their eggs on young leaves of Bald Cypress (Taxodium distichum) and Pond Cypress (Taxodium ascendens). The eggs are a bright orange, typically laid in clusters of fifteen. The developing maggots will make the gall swell up to ¾ to 1 ¼ inches long. The gall itself is spongy, and will get bigger depending on how many maggots are in. New galls are pale green or pink, with a white bloom. Older galls will turn brown and eventually fall from the tree as the leaves shed. The maggots in the galls can pupate and adults may emerge from galls that are still on the tree later in the season.

Cypress twig galls are found along the stem, not at the tip.
Photo: Suzanne Klick, UME

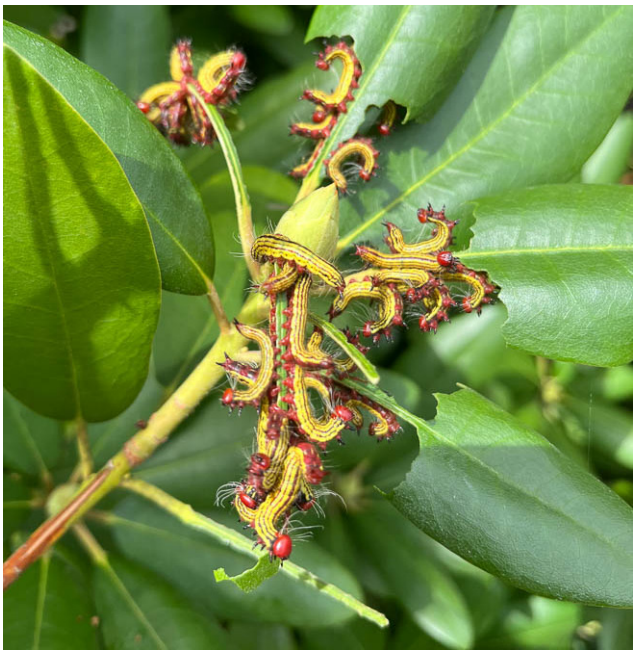
The cypress twig gall is found along the stem of the twig. It can sometimes be mistaken for the cone which is found at the tip of the twig. These galls do not cause enough damage to warrant control. Galls can be pruned out if feasible.

Manager (Facilities Manager)

The University of Maryland is accepting applications for a ***Manager of their Turfgrass Facility*** (FT), located at their Central Maryland Research and Education Center (CMREC)-Turfgrass Facility, College Park, MD 20742. ***Duties***: This position is under the general supervision of the Center Director and is responsible for planning the daily operations of the facility, working with researchers and staff implementing projects, research and educational programming, which includes coordinating the assignment and use of farm resources: land, building, equipment and supplies in the furtherance of research. This is a supervisory position. ***Min. Qual.,*** Bachelors of Science (Turfgrass or related field). Five (5) years turfgrass management experience. Three (3) years of direct supervisory experience. Interested persons can apply via our website at https://ejobs.umd.edu/postings/121723. For consideration, please apply by September 8, 2024. **EOE/AA.**

Azalea and Oak Caterpillars

Mark Adams found azalea caterpillars (*Datana major*) feeding on a rhododendron in Midlothian, VA this week. Another related species that is active at this time of year is the yellownecked caterpillar (*Datana ministra*) which is found on oaks and other woody tree species. At our research center in various years, we have seen them defoliating a crabapple in the landscape. Tachinid flies were one of the beneficials preying on these caterpillars. **Control:** Prune out clusters of caterpillars on light infestations on small trees. If necessary, apply *Bacillus thuringiensis* (Bt) for early instars. Confirm or Conserve should reduce populations.



Datana **specis of caterpillars, like these azalea caterpillars, hold their ends aloft when disturbed.**
Photo: Mark Adams

There are tachinid flis on head of this yellow-necked caterpillar with an adult tachinid fly nearby.
Photo: Suzanne Klick, UME

White Prunicola Scale

By: Stanton Gill

The second generation of white prunicola scale, (*Pseudaulacaspis prunicola*) is now in the settled stage of the 1st instars. You can still used Talus or Distance to control this stage. We will see the 3rd generation of this scale active in September. Examine cherry laurel, which is the most frequent plant to be infested with this armored scale.

Spotted Lanternfly

By: Stanton Gill

We are seeing people do the spotted lanternfly dance in several locations. Curious people are getting close to the adults which leap and usually only go a short distance. They land on just about anything. When they land on people, we see the "spotted lanternfly dance" where a person swats and jumps around. The spotted lanternfly will not bite or harm people, but generally, people do not appreciate having a bug land on them. Let's hope they do not cause an accident involving a car if they get inside and the person tries to do an evasion dance.

Spotted lanternfly adults are producing a lot of honeydew at this time of year.
Photo: Suzanne Klick, UME

We received reports of the following SLF activity: Amanda Laudwein saw spotted lanternflies in Purcellville, VA last weekend. Kate Blom saw about 60 spotted lanternflies walking around on a sidewalk at an office complex in Timonium. Kate noted that in Towson, she has only see a few this season. Per Ginny Rosenkranz, Tyler Mathis, Bartlett Tree Experts, saw two in Willards and the other in Preston on the Eastern Shore. We visited a site this week with clusters of adults at the base of several Ailanthus trees in Columbia. Honeydew was pooling at the base of the trees. Based on feedback via emails, spotted lanternflies are being found clustering on *Ailanthus*, black walnut, red and silver maples, river birch, and willow trunks.

The adult spotted lanternflies are producing copious amounts of honeydew at this time of year and it is dripping onto cars, sidewalks, patio furniture and kids outdoor play equipment. A good pressure washer with cleaning soap can be used to wash off the honeydew.

If you are nursery or garden center traveling into Pennsylvania, you need to have a spotted lanternfly permit - https://www.pa.gov/content/dam/copapwp-pagov/en/pda/documents/plants_land_water/plantindustry/entomology/spotted_lanternfly/documents/Spotted%20Lanternfly%20Permit%20Requirements%20and%20Guidance.pdf

Dog-day Cicadas

By: Clover Davis, UME Intern

Dog-day cicadas (*Neotibicen canicularis*) are a type of annual cicada common in Central and Eastern US. They are currently emerging to mate and lay their eggs, which hatch and crawl underground to overwinter. As annual cicadas, they emerge in relatively small numbers every year, unlike the periodical cicadas that emerge in a massive brood after decades. They are larger than their periodical cousins, and their call is often compared to a buzzsaw. Annual cicadas are harmless; they pose no threat to agriculture, landscapes, humans, or pets.

Look for (and listen for) dog-day cicadas at this time of year.
Photo: Suzanne Klick, UME

Snowy Tree Crickets

By: Clover Davis, UME Intern

Snowy tree cricket damage on cherry laurel leaf. Photo: Suzanne Klick, UME

Snowy tree crickets are small and pale green with translucent wings. They are also known as thermometer crickets because the rate of their chirp reliably depends on the temperature. At this time in August the nymphs are maturing into adults. Nymphs cause wounding can cause callousing, stem breakage, or fungal problems. Adults feeding on fruit can leave holes that promote rot. They lay their eggs in September, overwintering in caneberries (such as raspberry and blackberry) and fruit trees (including apple, plum, peach, and cherry). If you notice callouses, leaf holes, and holes in fruit, look for the nymphs or adults. You can determine the severity of the problem by tapping affected branches over a sheet and counting the nymphs. Removing brambles that can host them helps to reduce the chance of infestation. Once the eggs are lain, affected branches or canes should be pruned out and burned before April. Insecticides usually aren't neccessary for snowy tree crickets, but in such case, they should be applied when the nymphs are small, prior to mid-July.

On ornamentals, we get regular reports of damage on the foliage of cherry laurel and rhododendron. Snowy tree crickets also feed on small insects, so control is not necessary in the landscape.

Sawfly on Lysimachia

Dave Freeman, Oaktree Property Care, found sawfly larvae feeding on *Lysimachia vulgaris* in Fairfax, VA. This sawfly also feeds on creeping jenny. These plant species are considered invasive in many locations, especially when growing in moist areas.

Control: 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, Spinosad, Mainspring, and Acelepyrn all work very well on this pest. Remember, sawflies are related to bees and wasps, not moths and butterflies, so Bt will not work as a control option.

Sawfly larvae feeding on loosestrife. Photo: Dave Freeman, Oaktree Property Care

Some of the Expected Lawn Diseases During Mid to Late Summer

By: Dr. Fereshteh Shahoveisi, UMD

Brown patch disease is a common fungal infection that affects home lawns, particularly those with cool-season grasses such as tall fescue, ryegrass, and Kentucky bluegrass. Diseases appears during warm, humid weather, often starting in mid to late July in Maryland and picking up in August. Disease symptoms are irregular, circular patches of discolored, brown grass, usually ranging from a few inches to several feet in diameter. The affected leaves usually exhibit a tan lesion with a dark brown border. The patches may expand rapidly under favorable conditions. Disease symptoms, when severe, might be confused with dry spots and lack of water. However, the lesions on the leaves and circular appearance of individual patches could help in distinguishing the symptoms.

Brown patch on the left (Photo: Thomas Lai) and drought stress on the right (Photo: Fereshteh Shahoveisi)

Another disease occurring in late summer is gray leaf spot which is also a fungal disease preliminary affecting perennial ryegrass. However, in recent years there are more reports of the disease on tall fescue. It thrives in hot, humid conditions, often becoming most problematic during the late summer and early fall. Symptoms start as water-soaked spots and eventually turn gray or brown with a dark border. As the disease progresses, the lesions can cause the grass blades to die, leading to thin, blighted areas on the stand. Gray leaf spot can spread rapidly, especially under conditions of high humidity and excessive nitrogen fertilization. To manage this disease, it's important to avoid over-fertilization, improve air circulation by proper mowing, and irrigate early in the day to reduce leaf wetness. In severe cases, fungicides may be required to protect turfgrass from further damage.

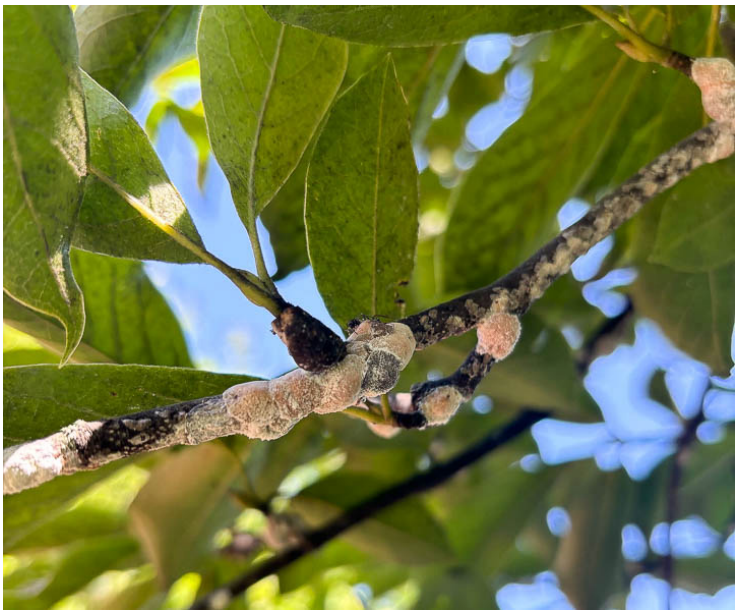
Gray leaf spot on perennial ryegrass
Photo: Fereshteh Shahoveisi

Summer patch is another fungal disease that is not as common as the other two diseases on lawns and landscape turf but could occur on Kentucky bluegrass and fine fescue. While the pathogen infects the plant roots in spring, the symptoms appear during hot, dry periods in the summer. It appears as circular or irregular patches of yellowing grass, which eventually turn brown and die, creating sunken areas. The patches can range from a few inches to several feet in diameter and may coalesce, leading to large areas of damaged turf. Summer patch primarily attacks the roots and crowns of the grass, disrupting the plant's ability to take up water and nutrients. Disease management practices should be implemented when the pathogen is active in spring.

Summer patch on Kentucky bluegrass/ tall fescue mixture Photo: Thomas Lai

Magnolia Scale

Todd Armstrong, The Davey Tree Expert Company, found magnolia scale this week on a saucer magnolia in New freedom, PA. Monitor magnolia scale and tuliptree scale populations for crawlers. When crawlers, are active, then treat with Talus or Distance.



An ant tending this magnolia scale population indicates that the females are feeding and producing honeydew. They are laying eggs. Look for crawlers. Photo: Toddy Armstrong, The Davey Tree Expert Company

Arizona Cypress 'Blue Ice'

In an earlier IPM report, we asked about who was growing Cupressus 'Blue Ice' (Arizona Cypress) in the area. This week, Kate Blom let us know that she has had one in her garden for about 6-7 years now that seems to be doing well.

Powdery Mildew Infections Continue

Mark Schlossberg, ProLawn Plus, Inc., reported powdery mildew infecting euonymus this week in Baltimore City. With sunny warm days and cooler nights. powdery mildew will continue to infect plants.

Early Leaf Defoliation

Mark Schlossberg, ProLawn Plus, Inc., is seeing defoliated cherry trees in Owings Mills and noted that it looks like autumn on the ground. The cherries could be infected with shothole fungus. It girdles the peitole and causes leaves to drop. He is also seeing early leaf drop on crabapples, river birches, tulip poplars, and sycamores. Early leaf drop is another impact of this summer's hot, dry weather.

An impact of the hot, dry summer - early leaf drop.
Photo: Mark Schlossberg, ProLawn Plus, Inc.

Heat Impacts on Pollinators

By: Christa Carignan, UME-HGIC

I read the "heat impacts" section of the last IPM Alert with interest and wanted to offer this recent article written for us recently by Dr. Anahí Espíndola, "Heat Waves Affect Pollination Too." (Also in Spanish). She comments on flower abnormalities, reduction of pollen quality, and impacts on pollinators in relation to high heat (and drought) like we've had this season.

Maryland Piedmont Reliability Project - Impact on Nurseries and Maryland Agriculture

By: Stanton Gill

Some of you may not be aware that the project called the **Maryland Piedmont Reliability Project (MPRP)** is proposing to run high voltage powerlines from southern Pennsylvania through Baltimore County, Carroll County, posted on the MPRP website. The project will require landowners, including farms and nurseries in the path of the proposed power lines, to sell their land lying within this high voltage powerline pathway. If you do not want to sell, they can invoke Eminent domain.

There have been meetings held in Baltimore and Frederick counties in early and mid-August for people to discuss and protest the project.

Coming up next week on Thursday, August 22 from 6:00 p.m. - 10:00 p.m. there will be a Townhall listening session held at the Carroll County Agriculture Center, Westminster, MD. If your farm or nursery is in the pathway of the proposed high voltage powerline pathway, then you will want to attend and voice your concerns and opinions. Voicing your concerns is one of the benefits of democracy.

Mushrooms in Turf

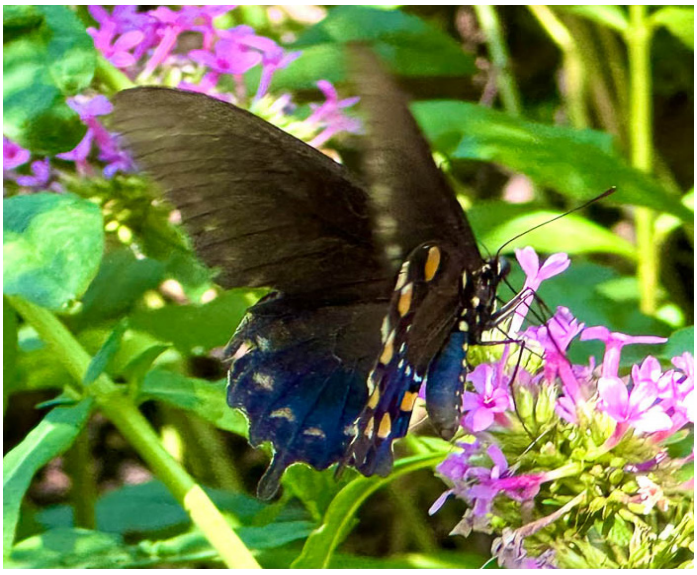
After the recent rains, we have received multiple reports of mushrooms in turf. David Lantz found a fairy ring in a lawn. These mushrooms show up in turf areas arranged in an arc or circle. They can be a problem in turf. Bill Miller, The Azalea Works, is finding mushrooms in pine bark-mulched beds. Bill noted that it's the largest cap that he has ever seen. Here at the research center in Ellicott City, we also saw mushrooms pop in the turf since last week's rain. Mushrooms that are scattered or in lines are decomposers. Some are mycorhizal.

Mushrooms in the arc of a fariy ring in turf.
Photo: David Lantz

The quarter on this mushroom helps show the large size of this fungus.
Photo: Bill Miller, The Azalea Works

Moth and Butterfly Sightings

Polyphemus moth drying itself in a lawn in Midlothian, VA.
Photo: Mark Adams

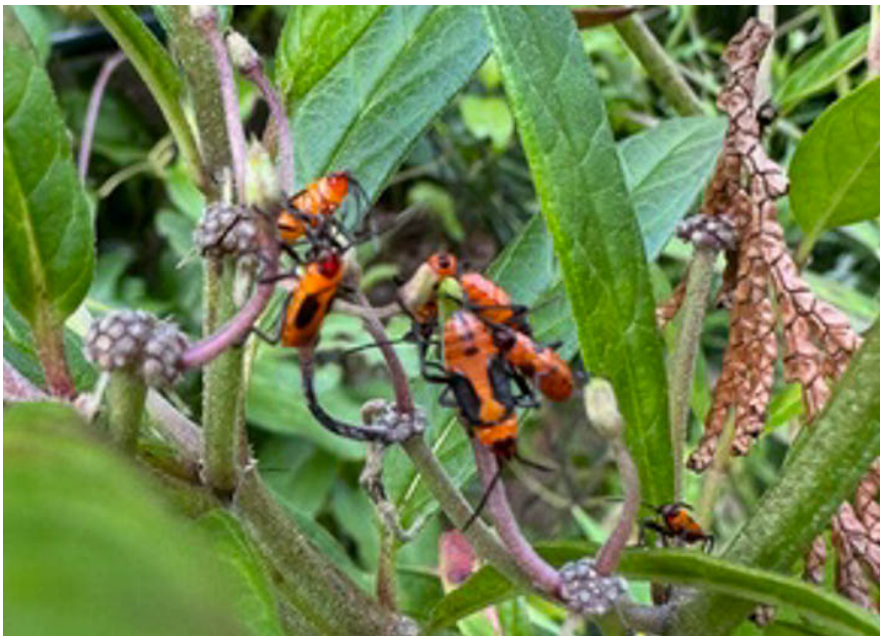


Nancy Woods reported she was "very excited to see this Pipevine swallowtail at my home on 8/11! I have planted Dutchman's pipe (Aristolochia macrophylla) to provide a host plant for this butterfly which is in decline in our area, both plant and butterfly. I haven't seen this butterfly for 10 years!"
Photo: Nancy Woods

Insects on Milkweeds

At this time of year, many insects are found on milkweeds. Oleander aphids are very common. They do not damage the milkweed and control is not necessary. Usually, syrphid fly larvae, parasitic wasps, and lady beetles help keep these aphids populations down.

There are several aphid mummies (aphids parasitzed by wasps) at the top of this cluster of oleander aphids. Elaine also saw lady beetles among them.
Photo: Elaine Menegon, Good's Tree and Lawn Care

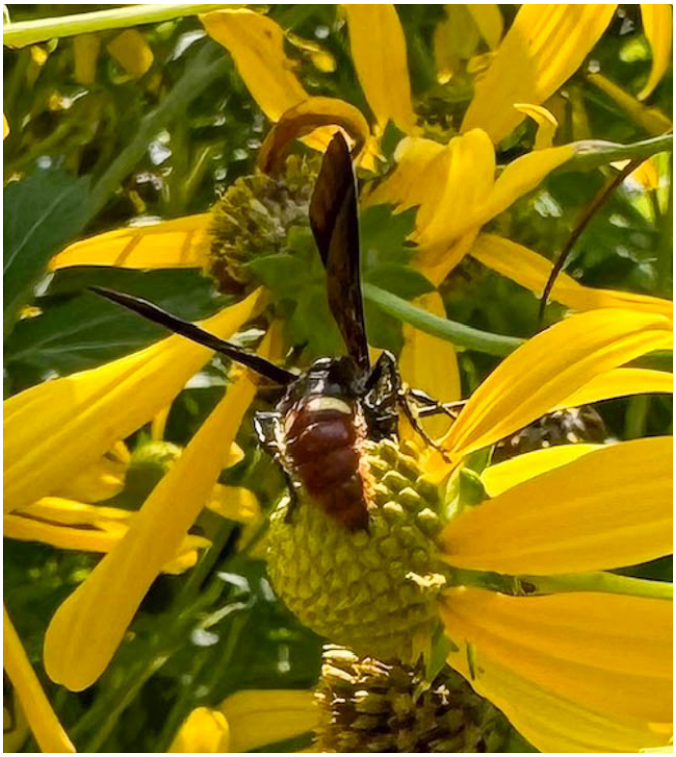


Milkweed bugs feed on leaves and stems, but are most numerous when plants are producing seed.
Photo: Connie Bowers, Garden Makeover Company

Another insect on milkweeds is the caterpillar of the monarch butterfly.
Photo: Connie Bowers, Garden Makeover Company

Wasps Are Active

Many different wasps are active at this time of year. Some are generalist predators. Others feed on specific insect groups. They also feed on pollen and nectar so you will see many of them at flowers in the landscape.



This *Scolia dubia* wasp (a digger wasp) preys on Japanese beetle and green June beetle grubs in turf.
Photo: David Lantz

Paper wasps prey on caterpillars and other insects. This one is on bronze fennel flowers. Dave also found mud dauber and potter wasps this week.
Photo: Dave Freeman, Oaktree Property Care

Carolina Praying Mantid

Nancy Woods found the native Carolina mantid (*Stagmomantis carolina*) at the Elm Street neighborhood park this week. It is one of the generalist predators found in the landscape.

A mottled brown color makes the Carolina mantid difficult to detect on woody plants. It stands out better on this phlox flower.
Photo: Nancy Woods

Beneficial of the Week

By: Paula Shrewsbury

Crab spiders are "sit and wait" predators

Crab spiders (order Araneae; family Thomisidae) are common predators found in a diversity of habitats including landscapes, nurseries, and natural areas. They can be found on the trunks, branches, and stems of plants, on leaves and on flower heads where they forage for prey. Many members of this family that forage in flowers are known as flower spiders or flower crab spiders.

This crab spider camouflages against a yellow flower, which allows it to remain unnoticed by an unsuspecting honeybee.
Photo: P.M. Shrewsbury, UMD

When you look at the front two pairs of legs of a crab spider and watch it move, it is easy to understand where it gets its name from. The two-front pair of legs curve towards the front and are longer and more robust than its other two pairs of legs. They can walk sideways and backwards in a crab-like manor. Like all spiders, crab spiders have simple metamorphosis where the young look similar to the adult and they shed their skin as they develop. Most crab spiders have one generation per year although some species have multiple generations. There are over 2,000 species of crab spiders worldwide, with about 200 species occurring in North America.

Crab spider, *Misumena vatia*, camouflages nicely on the flower of a mint plant while it sits and waits for its food to land nearby.
Photo: P.M. Shrewsbury, UMD

Members of the crab spider family do not build webs. Crab spiders are described as sit-and-wait or ambush predators. Many species camouflage amongst the flowers, plant bark, or foliage where they hunt for prey. Some species, such as the flower crab spider *Misumena vatia*, can change color to camouflage with their background which allow them to "hide" from potential prey items. It may take a few days but *M. vatia* can appear white, yellow, or green with two reddish lines running down its sides. Crab spiders sit very still and wait for a bee, fly, moth, mosquito, beetle, caterpillar or other unsuspecting insect to come within its reach. The crab spider then speedily grabs its prey with its front claw-like legs, bites it with fangs that contain venom that kills

the prey, and then secretes digestive enzymes that liquefy the insect and creates an appealing meal for the crab spider. Sounds tasty. Some crab spiders are also known to feed on nectar, so a flower head is a good place to catch prey and sip on nectar for these spiders.

Take some time and observe these beautifully colored spiders. Watch them as they patiently "hunt" their prey. Crab spiders are just one predator in the complex of many that forage on plants and help to reduce herbivore abundance and the likelihood of potential pest populations reaching damaging levels. Plant flowers and add landscape diversity to attract crab spiders and other beneficials.

Crab spider feeding on a bee that it caught on goldenrod. Photo: P.M. Shrewsbury, UMD

Weed of the Week

By: Chuck Schuster, UME

Fall Weed Germination:

Soil temperatures remain warm. This week the average low soil temperature in central Maryland was 73 °F. As temperatures start to decline, be ready for the start of fall germinating weed season. Remember the use of pre-emergent herbicides needs to consider the requirement to have the product applied prior to the germination of the weed seed, not just as the seed germinates.

Below is a review of some of the weeds that are generally considered fall germinating.

Annual bluegrass is one plant that can be prevented from germinating starting in the late summer. When soil temperatures drop below 70 °F, annual bluegrass will start to germinate. This plant will have seeds continue to germinate throughout the milder part of fall and winter, and will flourish in the spring. Each plant can produce up to 100 seeds each year.

Chickweed can germinate when soils decline below 68 °F and have the proper soil moisture. One study indicates that the optimum soil temperature is 54 °F to 68 °F. The seeds are highly viable and may remain viable for 60 years or more depending upon environment (Evans 1962). Each plant can produce 600–15,000 seeds.

Henbit seeds will germinate in soil temperatures between 68 °F and 59 °F. It is recommended that you apply pre-emergent herbicides right before the soil temperature cools to 70 °F.

Hairy bittercress is another weed that will germinate in the late summer as soil temperatures drop below 68 °F.

Purple deadnettle (*Lamium purpureum*) seeds germinate in the fall when temperatures cool to the range of the range of 68 °F as the high soil temperature. Purple deadnettle is a winter annual. Two other weeds in this same range of soil temperatures for germination are hairy bittercress and corn speedwell.

With temperatures having been very warm this summer, and soil temperatures warming up earlier and staying warm for a longer period of time, turf has been stressed for many sites in the region. A lack of moisture in some

areas adds to these stresses. As one considers fall germinating weeds, consider the soil temperature trends. Currently the trend is stable, but day length is shortening each day. This week, overall air temperatures have been slightly lower. Many areas received moisture from the storm last Friday. Soil temperatures vary greatly across the state of Maryland. Don't just consider the area around your home or office, consider the many sites you travel to and the effects of the microclimates in those areas. Brick buildings will reflect heat back to the soil keeping it warmer longer. One can use the website https://mesonet.umd.edu/ to determine local soil temperatures if needed. Also remember that for granular pre-emergent products to work they must be activated by moisture. This moisture can be rainfall or irrigation. Timing is critical. Pre-emergent products only work when applied and activated prior to germination. Some products are pre and early post emergent, but that is more the exception and not the rule. Now that soils have a little moisture in most regions, post emergent non-selective products that require active growth can be used again also.

Plant of the Week

By: Ginny Rosenkranz

Coreopsis verticillata 'Zagreb' or threadleaf coreopsis is a native herbaceous perennial that thrives in full sun and prefers to grow in very well drained soils. It is very tolerant of poor, sandy, rocky soils, excessive heat, humidity and drought. Like all of the threadleaf coreopsis, 'Zagreb' can spread by rhizomes and, if growing in moist soils it can self-seed. Plants are cold tolerant in USDA zones 3-9, thriving in all of Maryland. 'Zagreb' grows in compact clumps about 1-1 ½ feet tall and wide and blooms from May into early autumn. It is very slow to emerge in the late spring. The foliage is attached opposite the stems, with each of the thin leaf blades Palmately divided into 3 parts, giving it the name thread leaf. Each blade has a pointed tip and no petiole or stalk. The foliage is so light and fine textured that it makes the plants look very airy. The bright golden yellow daisy like flowers grow 1 inch in diameter, and are composed of bright yellow central disk florets that are surrounded by yellow untoothed ray florets. The plants can be sheared in late summer to deadhead and neaten up the plants. These natives can be used as a groundcover, in a meadow, a butterfly garden, cottage garden or a water wise garden. There are no serious insect or disease problems, but if grown in moist or poorly drained soils the plants could get crown rot. Other disease that the plants could but seldom do include botrytis, aster yellows, powdery mildew and fungal spots. Deer leave this lovely plant alone.

***Coreopsis verticillata* 'Zagreb'**
Photos: 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 **2572 DD** (Martinsburg) to **3430 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.

Japanese maple scale – egg hatch / crawler (2nd gen) **(2508 DD)**
Fern scale – egg hatch / crawler (2nd gen) **(2813 DD)**
White prunicola scale – egg hatch / crawler (3rd gen) **(3238 DD)**
Banded ash clearwing borer – adult emergence **(3357 DD)**
Tuliptree scale – egg hatch / crawler **(3472 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 August 14)

Annapolis Naval Academy (KNAK)	3061
Baltimore, MD (KBWI)	3089
College Park (KCGS)	3074
Dulles Airport (KIAD)	3111
Ft. Belvoir, VA (KDA)	3098
Frederick (KFDK)	3034
Gaithersburg (KGAI)	2867
Greater Cumberland Reg (KCBE)	2759
Martinsburg, WV (KMRB)	2572
Millersville (MD026)	2925
Natl Arboretum/Reagan Natl (KDCA)	3419
Perry Hall (C0608)	2812
Salisbury/Ocean City (KSBY)	2831
St. Mary's City (Patuxent NRB KNHK)	3430
Susquehanna State Park (SSQM2)	2862
Westminster (KDMW)	3182

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

2025 Advanced Landscape IPM PHC Short Course

This is a recertification short course for arborists, landscapers, IPM consultants, horticulturalists, professional gardeners, and others responsible for urban plant management. The course lectures will be held over four days at the University of Maryland, College Park, MD. In addition, there will be a hands-on lab following lecture (available to a limited number of course attendees). Coordinators: Drs. Paula Shrewsbury and Mike Raupp, Dept. of Entomology, University of Maryland

Lecture dates: Monday, January 6 - Thursday, January 9, 2025 from 8:00 am – 3:00 pm

Lab dates: Monday, January 6 - Thursday, January 9, 2025 (space limited) from 3:30 pm – 5:30 pm

Course and registration information: https://landscapeipmphc.weebly.com/

Questions contact: Amy Yaich, 301-405-3911, umdentomology@umd.edu

Conferences

September 17 and 18, 2024
Cut Flower Program
Locations: Central Maryland Research and Education Center, Ellicott City, MD and locations in Howard County

September 18, 2024
Urban Tree Summit (Casey Trees and Montgomery Parks)
Location: Silver Spring Civic Center. To register please visit Urban Tree Summit or https://urbantreesummit.org/

October 9, 2024
MNLGA Retail Day
Location: Homestead Gardens, Davidsonville, MD

December 5, 2024
Tech Day: Focus on Solar
Location: CMREC, Ellicott City

December 12, 2024
2024 Cultivating Innovation in Maryland's Agriculture and Technology Conference
Location: Crowne Plaza, Annapolis, MD (Program and registration information)

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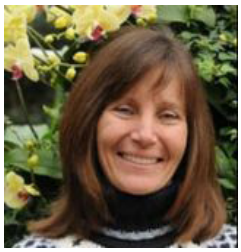

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Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.