

Commercial Horticulture

June 2, 2023

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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) and Kelly Nichols (Extension Educator, Montgomery County)

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Bagworm Hatch

By: Stanton Gill

Bagworms are starting to hatch now. Greg Dorczak, NaturaLawn of America, spotted some first instar bagworms in Baltimore County on May 30. If you are seeing activity, send me an email at Sgill@umd.edu. The 1st instars start naked, but put silk out of a gland below the stomach and project the silk through their mouth that they wrap around their body. They weave in small parts of evergreen or deciduous plant foliage to create a camouflaged casing.



Bagworm egg hatch in Baltimore County this week.

Photo: Greg Dorczak, NaturaLawn of America

Cut Flower Education Seminar June 20, 2023

By: Stanton Gill

Our IPM team is setting up a one-day seminar at Castlebridge Farm in Ellicott City, MD for commercial cut flower growers on June 20, 2023. The Association of Specialty Cut Flower Growers is co-sponsoring this event with us. We have arranged to have speakers from The Botanical Trading Company, Syngenta Flower Division, Heartwood Nursery of Pennsylvania, and our IPM team with expertise in cut flower growing and problem solving. There will be a short tour of the farm in the morning.



For details and to register on-line: <https://23Jun20Cutflower.eventbrite.com>

For a brochure and to pay by check: [IPMnet Conferences Page](#)

Turfgrass Diseases: Red Thread

By: Fereshteh Shahoveisi

Red thread is a common fungal disease that affects turfgrass. The red thread disease appears as pink or red fungal growth on the grass blades, giving the affected areas a discolored and unsightly appearance. Red thread is most prevalent in cool, humid climates and is often triggered by extended periods of wet weather, poor soil drainage, or nutrient deficiencies. For example, last weekend, College Park received about one inch of precipitation and the temperature was below 75 °F which resulted in the appearance of red thread on the perennial ryegrass area in the UMD Turfgrass Farm (Figure 1). Despite its alarming appearance, red thread disease rarely causes severe damage to the overall health of the turfgrass. The symptoms of the red thread disappear as temperature increases later in summer. Proper lawn management practices, such as regular mowing, adequate fertilization, and ensuring proper airflow, can help prevent and control the spread of this disease.



Figure 1. Red thread on perennial ryegrass in College Park, MD on May 30th, 2023
Photo by Dr. Fereshteh Shahoveisi

Drought for Much of Maryland

By: Stanton Gill

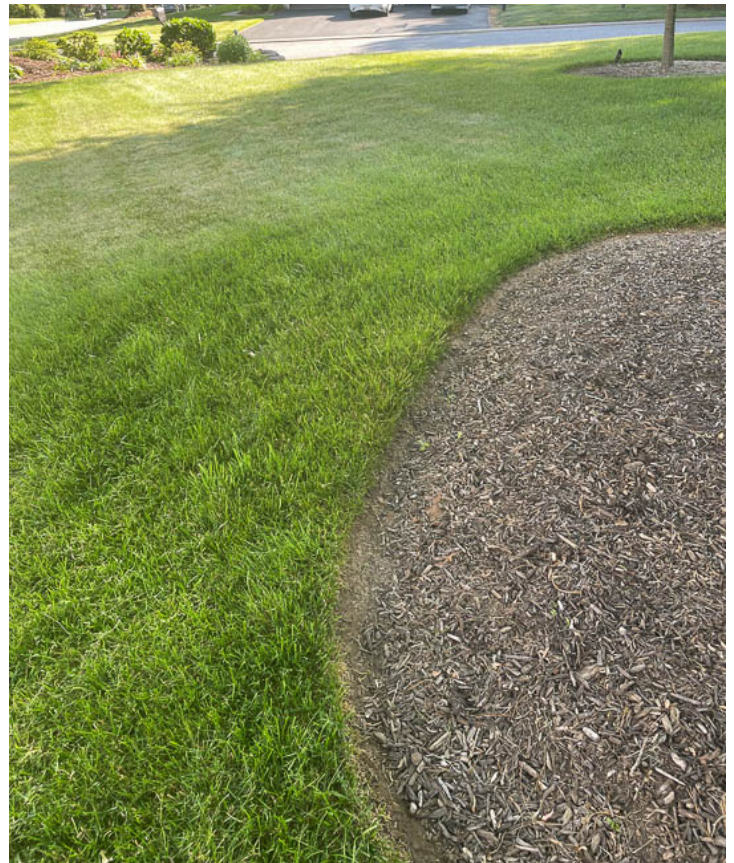
Hopefully, the rain predicted for Saturday does happen. Across Maryland, we are in drought conditions. Of course, some lucky parts of the Eastern Shore got a drenching rain on Memorial Day Weekend. It wasn't great for Ocean City, since it drove the tourists off the beach on Sunday and Monday.

NOAA is reporting that this is the driest May we have had in 80 years. If you installed plant material this spring, be sure to keep the watering up. The high intensity light quality of the last 2 weeks is drying out plant material rapidly. We are getting a lot of reports of plants wilting during the sunny days, and since the humidity is low, a lot of water is evaporating.

As a result of the dry weather, pollen levels are extremely high. You can see thick layers on cars. We haven't the rains to wash it all out. It is also not a good year for those who suffer with allergies.



After such a dry May, drought problems are showing up in lawns and landscapes.
Photo: Mark Schlossberg, ProLawn Plus, Inc.



Irrigated lawn- shade is protecting turf under the tree. But out in the sun, irrigation is not helping.
Photo: Mark Schlossberg, ProLawn Plus, Inc.

Maryland Department of Agriculture Pivots Toward a More Options-Driven Nutrient Management Plan Writing Program

Annapolis, MD (June 1, 2023) - The Maryland Department of Agriculture today announced a shift in its Nutrient Management Plan Writing Program that will focus on a new approach to education, training, and farmer empowerment. The decision to move to this new options-rich model comes as a greater demand for plan writing has increased following the COVID-19 pandemic.

“The Maryland Department of Agriculture and the University of Maryland have enjoyed a long-standing partnership regarding Nutrient Management Plan writing and that will continue with this new program,” said Maryland Department of Agriculture Secretary Kevin Atticks. “In addition to new incentives for farmers, this program will align with Chesapeake Bay goals while giving Maryland farmers the tools they need to succeed as strong stewards of the environment.”

Maryland law requires all farmers grossing \$2,500 a year or more or livestock producers with 8,000 pounds or more of live animal weight to follow nutrient management plans when fertilizing crops and managing animal manure. Nutrient management plans specify how much fertilizer, manure or other nutrient sources may be safely applied to crops to achieve yields and prevent excess nutrients from impacting waterways.

Because of their complexity, these plans must be prepared by a certified University of Maryland specialist, certified private consultant, or farmer who is trained and certified by the department to prepare his or her own plan. Driven by input from industry, the nutrient plan writing program will expand Maryland farmers' access to nutrient management plan writers and plan writing services, helping farmers meet their environmental stewardship needs and grow compliance with statewide regulations.

The transition is anchored by a valued partnership and educational and training expertise provided by The University of Maryland's College of Agriculture and Natural Resources, access to new, beneficial cost-share programs and plan-writing services offered by industry professionals.

The new program features a progressive approach that includes the following:

- Access to beneficial cost-share programs that will provide partial funding to all eligible farmers in Maryland to access plan-writing services from industry professionals;
- Opportunities and workshops to help nutrient management advisors become aware of plan writing employment through the private sector;
- Assisting current University of Maryland planners obtain business licenses to write plans privately;
- MDA funded UMD specialists providing expanded nutrient management plan writing workshops across the state for ALL Maryland farmers (underserved, small, medium, and large). Support may also be provided to write nutrient management plans for smaller operations;
- New opportunities for Maryland-based agricultural organizations to build alliances with privatized nutrient management planning services.

“The time is right to privatize and move in the direction that the department envisioned years ago, and we are supportive of this decision,” said University of Maryland's College of Agriculture and Natural Resources Dean Craig Beyrouy. “As is our role and duty as a land-grant institution, AGNR is highly motivated to stay involved and help plan writers and producers with nutrient management education, tools, and advice.”

“We would like to recognize the University of Maryland's College of Agriculture and Natural Resources and its Department of Environmental Science and Technology for their success and contributions over the years,” said Atticks. “We look forward to building upon their strong foundation to take this already successful program to new heights.”

For a list of frequently asked questions related to the future of this program please visit the Maryland Department of Agriculture's website at mda.maryland.gov.

Spotted Lanternfly

By: Stanton Gill

There is nothing really new this week, but 1st and 2nd instar nymphs are being reported in several counties in Maryland. Luke Gustafson, The Davey Tree Expert Company, reports "consistently seeing individual SLF nymphs throughout Baltimore City especially on tender new growth of plants like raspberry, hydrangea, Ailanthus, and rose". Nymphs feed on a range of plants, but very little damage is detected on most plants, with the exception of grapes and hops.



Early instar nymphs are active at this point. This one is hanging out on a rose bush. Photo: Luke Gustafson, The Davey Tree Expert Company

Leafrollers in June

By: Stanton Gill

There are caterpillars called leafrollers in the family Tortricidae that are active in May and early June. In my orchard, I am seeing tortricid caterpillars rolling leaves over next to apples and pears and feeding on the outer skin of the fruit in late May. Delegate (a spinosad material) gives very effective control of this pest, but you need to treat right now.

We received a report of webbing on several landscape plants in the last week of May. One caterpillar that is active right now is the *Archips cerasivorana*, the ugly-nest caterpillar moth, is a species of moth of the Tortricidae. The caterpillars of this species are known to create nests by tying the leaves of their host plant together. Within the nests, they live and feed off the leaves that have been tied together. The larvae are brownish or greenish yellow with a shiny dark brown head. Larvae can be found from May to July. Spinosad products give good control and Mainspring systemic is also excellent on controlling Tortricidae.



Ugly-nest caterpillars tie leaves together and feed within the nest. Photo: USDA Forest Service - Northeastern Area , USDA Forest Service, Bugwood.org

Azalea Bark Scale

Kevin Nickle, Scientific Plant Service, found azalea bark scale this week. Look for sooty mold on leaves and yellowing leaves. First generation crawlers are active in Maryland in May and June. If the population is low and damage is minimal, look for beneficial insects which do a good job controlling this insect.

In summer when crawlers are active, you can use a summer rate (0.5 – 1.0%) of horticultural oil for control.



Look to see if beneficials are present around azalea bark scale populations.

Photo: Kevin Nickle, Scientific Plant Service

Ambrosia Beetle Trap Counts

Ambrosia beetles found in traps are still low. There was one *Xylosandrus* sp. beetle this week in the trap that Ginny Rosenkranz monitors in Salisbury. Our trap here in Ellicott City had four *Xylosandrus crassicus*, two *Xyleborinus alni*, and one camphor ambrosia beetle.

Crapemyrtle Bark Scale

By: Stanton Gill

Our technician, Sheena O'Donnell, placed a crape myrtle branch under the scope on May 31, 2023 and found the first crawlers emerging on our CMREC test plants in Ellicott City. You can apply Talus or Distance at this point and get very good control. Systemics such as Dinotefuran and Altus work very well.



Look closely at crapemyrtle bark scale populations for crawlers.
Photo: Sheena O'Donnell, UME

A Lot of Aphids

By: Stanton Gill

The cool nights and dry weather is perfect for aphids to flourish. We are getting a lot of reports of aphids on birch, tulip poplar, and other trees. They are producing honeydew which is dripping down onto cars. The lack of rain is suppressing natural entomopathogens that would help control aphids.

Luke Gustafson, The Davey Tree Expert Company, continues to "see lots of aphids on a number of different plants including spruce, roses and just yesterday what look like *Aphis fabae* on the seed head of a rhubarb plant in my garden at home in Woodbine." Luke also found white pine aphids on June 1. Luke reported "I noticed lots of honeydew and pollen/honeydew spots on the leaves of a shrub then found an adjacent white pine with some branches covered in white pine aphids. It's good for folks to keep in mind that honeydew can drift a bit and to always look up when they see shiny leaves! The grass directly under those branches was very, very sticky!" These aphids overwinter as black eggs on needles. Dormant oils can be used in winter if needed.

Elaine Menegon, Good's Tree and Lawn Care, found aphids on beech trees in Hershey today. She noted that treatment was not needed since lady bugs were eating them.

Sam Fisher, Bartlett Tree Experts, reports that he has been seeing more aphids on crape myrtle than scale lately. Sam noted that he is also seeing a fair amount of lady beetles.

Chris McComas, UME-HGIC, found this fluff from woolly aphids in the tight spots of a weeping crabapple. Several lady beetles are feeding within this mass.



Giant conifer aphids on spruce. These aphids are often found in large groups.

Photo: Luke Gustafson, The Davey Tree Expert Company



A lot of aphid cast skins are covering the underside of these birch leaves.

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



There are two lady beetle adults feeding within this mass of woolly aphids.

Photo: Chris McComas, UME-HGIC



There is a black lady beetle larva at the bottom of a crape myrtle leaf.

Photo: Sam Fisher, Bartlett Tree Experts



White pine aphids are covering the branches on this pine tree.

Photo: Luke Gustafson, The Davey Tree Expert Company

Powdery Mildew in the Landscape

By: David L. Clement and Karen K. Rane, Extension Specialist and Plant Clinic Director

Landscape plants such as roses, monarda, and crape myrtles are currently showing powdery mildew symptoms. We've had perfect weather recently with warm days and cool nights. Powdery mildew is the common name for the diseases and symptoms caused by a closely related group of fungi with several genera and species. These fungi grow on the upper and lower leaf surfaces, young stems, shoot tips, flower buds, and/or blossoms of plants. As they grow, they produce microscopic chains of spores that give infected areas their characteristic white powdery appearance.

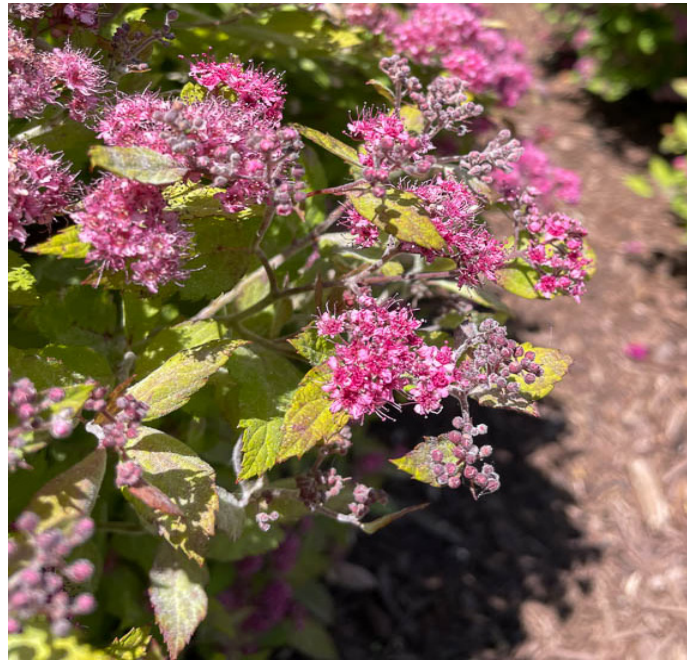
The powdery mildew fungi parasitize the tissues of the plant causing a decline in its vigor. They also block light needed for photosynthesis. Infection is rarely lethal, but does cause leaf yellowing and browning, leaf distortion, premature leaf drop and blemished or aborted flowers, and slower-than-normal growth. Young plants grown in heavy shade are the most seriously affected by this disease. Dry daytime weather allows spores to spread to other plants on air currents. On a cool evening they absorb enough moisture from the air to germinate and cause infection. The entire powdery mildew life cycle can take place in less than a week under ideal conditions, and many overlapping infection cycles can occur within a single growing season. These fungi overwinter in the bud scales, stems, and fallen leaves for initiation of infection next season.

Control begins with the selection of plants resistant to powdery mildew. Place susceptible plants where there is adequate sunlight and good air circulation to reduce humidity levels. Allow proper plant spacing for the same reasons. Pruning (thinning out plants) for better air circulation also may help. Registered fungicides may be needed if disease is severe. Check the label registration for organic products such as horticultural oil formulations for powdery mildew control listings.



Luke is seeing a more severe infection of powdery mildew on crape myrtle in and around Baltimore than he has seen recently.

Photo: Luke Gustafson, The Davey Tree Expert Company



Powdery mildew infection is starting on a group of spirea in Howard County.

Photo: Marty Adams, Bartlett Tree Experts

Beneficial of the Week

By: Paula Shrewsbury

Golden-backed snipe fly – unusually beautiful for a fly

In the last few days, I have had a few people sending pictures and asking what these beautiful insects are. I imagine others are seeing them too so I wanted to let you know what they are and what they do. These true flies (order Diptera) in the family Rhagionidae are golden-backed snipe flies, *Chrysopilus thoracicus*. *Chrysopilus* means golden hair and *thoracicus* indicates the thorax of the insect. Golden-backed snipe flies are considered to be quite beautiful for a fly. The golden hairs on their thorax gleam in the sunlight and present a dramatic contrast against the dark abdomen and smokey colored wings. These recent sighting's are indicative that this is the time of year golden-backed snipe fly adults are active and mating (see image).

As a group, Rhagionidae are known as snipe flies. It is believed snipe flies got their name because they have a prominent proboscis (sucking type mouthpart) that looks similar to the beak of a snipe bird (with a little imagination of course). In general, snipe flies tend to be found on lower growing vegetation in shadier, damp locations. Snipe flies are often seen resting on a grass blade or stems of vegetation. Adult snipe flies are long-legged and their abdomens taper at the end. The larvae of snipe flies (legless maggots) are aquatic in some species and terrestrial in others often being found moist soil, grass, moss or decaying logs.

Adult golden-backed snipe flies are about ½" in size. Males are smaller than females and males have "larger" eyes than the females (see images). Males have holoptic eyes meaning they meet in the middle, while females

have a space between their eyes. The difference in the eye spacing and size are the best way to distinguish male and female snipe flies.

Golden-backed snipe flies often hang out on grasses, sedges, and other vegetation, usually not more than a few feet from the ground, with their heads directed downward resulting in another common name “down lookers”. Adults and larvae are predators. Adult golden-backed snipe flies are known to feed on aphids and other small insects. Females lay batches of eggs at the soil surface and in leaf litter or decaying wood. The larvae hatch and feed on small insects that are in moss, decaying wood or leaf litter.

Be sure to take the time to admire these beautiful flies who provide some level of biological control service.



Golden-backed snipe fly, *Chrysopilus thoracicus*, male (left) and female (right).
Photo: R.A. Waterworth



Golden-backed snipe fly, *Chrysopilus thoracicus*, perched on vegetation. Note the larger female on the left and smaller male with holoptic eyes on the right.
Photo: M.J. Raupp

Weed of the Week

By: Chuck Schuster, UME-Retired

With the dry weather, many plants are struggling. Some weeds are in a holding pattern, and others are thriving with the stress of the turf. One plant that seems to be ahead of schedule is showing up in many areas currently. With the mild winter, this plant took off early and is thriving.

Hedge mustard, *Sisymbrium officinale*, is an annual, but can be either a winter or summer. Used as an herb with medicinal properties, it is also being found in nursery and landscape settings in the mid-Atlantic region. This plant seems to do well in areas where the soil is compacted, such as walkways or overused areas. As a winter annual, it will overwinter in the rosette stage. It is a tall erect annual, with alternate leaves growing to three feet in height. Stems are light green to purplish green in color and have white hairs near the lower portion of the stem, but the upper portion is hairless. Individual leaves are narrow, divided into three lobes, and lanceolate-ovate in shape. The upper stems terminate into a slender raceme with yellow flowers, which can be up to ten inches in length. Small cylindrical seedpods will develop, and one plant can produce between 2,500 and 9,000 seeds annually. Hedge mustard has a white taproot.

Control may be obtained by mechanical methods in landscapes. In hand removal, it is best to wait until flower formation and then remove it. When found in turf or away from desirable trees and shrubs, many broadleaf herbicides will provide excellent control, including 2,4D, dicamba, and triclopyr. Please note that triclopyr

should not be used on Bermuda grass or other grasses that spread by stolons. In landscape and nursery settings, pre-emergent products that include Surflan, and Snapshot are labeled. Goal can be used as a pre-emergent and early post emergent product. Glyphosate can be used in limited settings being cautious not to contact the stem, bark or leaves of desirable species.



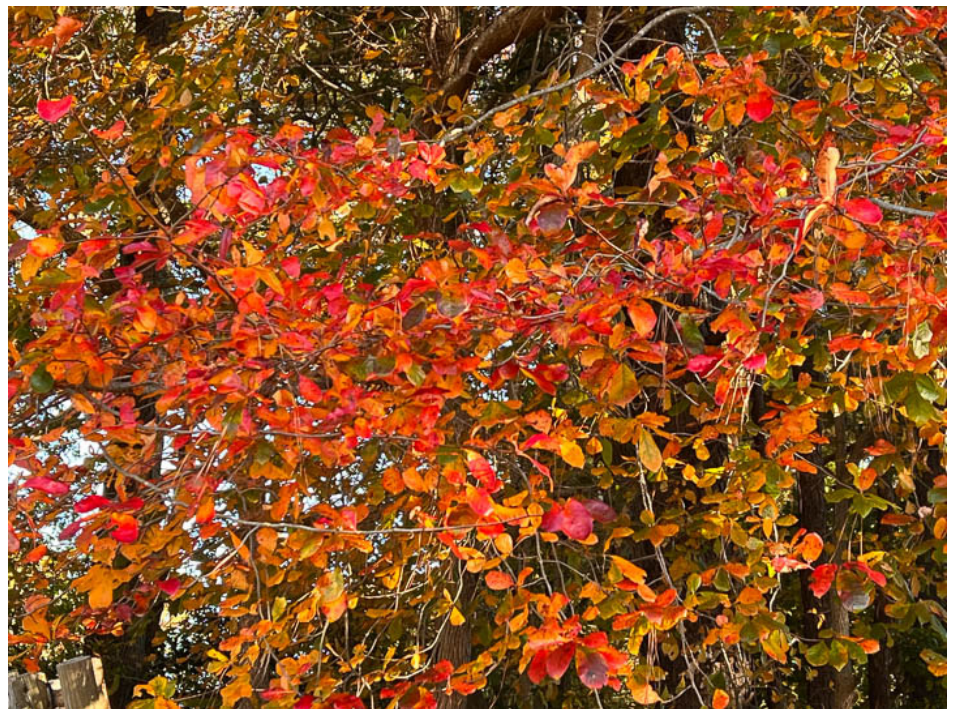
**Hedge mustard seems to be ahead of schedule this year.
Photos: Chuck Schuster, UME-Retired**

Plant of the Week

By: Ginny Rosenkranz

Nyssa sylvatica is a native medium-sized deciduous tree that is also known as black gum, sour gum, black tupelo, and pepperidge. Growing 30-50 feet tall and 20-30 feet wide, it thrives in full sun to part shade and loves moist, acidic soils. Once established, trees can survive dry soils and poorly drained soils for a while. Black tupelo has a strong taproot which makes it difficult to transplant established trees, but many nurseries are now specializing in growing native trees in containers, making *Nyssa sylvatica* more assessable. The trees are dioecious, with male and female plants, so for good fruit set both male and female trees need to be available for pollination, but there are sometimes some perfect flowers produced. The female flowers are produced in small clusters, while the male flowers are dense bouquets. The flowers themselves are small and pale-yellow green in color and are an excellent source of nectar for bees. The flowers mature into sour tasting, ½-inch oblong blue-black fruit in late September, providing food for native birds and mammals. Plants are winter hardy in USDA zones 4-9 and are slow to medium in growth. If they are planted in moist soils, they tend to grow a bit faster.

Young plants are pyramidal, but as they mature, the branches are often horizontal and/or weeping. The 3-6-inch leaves are set alternately on branches and are dark green on top and softer green on the underside. The shape is oval with an entire margin with some leaves being slightly toothed. The dark green leaves begin to change color in early autumn to bright yellow, orange, and scarlet, giving early warning to cooler nights and shorter days to come. Trees can be planted as specimen shade trees, a part of a rain garden, or as a part of a wooded area where the dark green summer color and the bright fall spectrum of colors can be seen and enjoyed. Diseases can include canker, leaf spot and rust while insects like leaf miner and scale can be occasional problems.



***Nyssa sylvatica* flowers provide a nectar source for bees. Its fall color is a striking bright red and orange.
Photos: Ginny Rosenkranz, UME**

Degree Days (as of May 31)

Abingdon (C1620)	672
Annapolis Naval Academy (KNAK)	780
Baltimore, MD (KBWI)	828
College Park (KCGS)	775
Dulles Airport (KIAD)	787
Ft. Belvoir, VA (KDA)	739
Frederick (KFDK)	704
Gaithersburg (KGAI)	690
Gambrills (F2488, near Bowie)	750
Greater Cumberland Reg (KCBE)	616
Perry Hall (C0608)	634
Martinsburg, WV (KMRB)	505
Natl Arboretum/Reagan Natl (KDCA)	983
Salisbury/Ocean City (KSBY)	799
St. Mary's City (Patuxent NRB KNHK)	1022
Westminster (KDMW)	824

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

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 **505 DD** (Martinsburg, WV) to **1022 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.

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)**
Juniper scale – egg hatch / crawler **(694 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)**
Cottony maple scale – egg hatch / crawler **(872 DD)**
Winged euonymus scale – egg hatch / crawler **(892 DD)**
European fruit lecanium scale – egg hatch / crawler **(904 DD)**
Cryptomeria scale – egg hatch / crawler **(937 DD)**

Azalea bark scale – egg hatch / crawler (**957 DD**)

Hibiscus sawfly – larva (early instar) (**1015 DD**)

Japanese beetle – adult emergence (**1056 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.

MDA Pesticide Container Recycling Program

Please be advised that the MDA Pesticide Container Recycling Program has been suspended for the 2023 year. Please visit Pesticide Container Recycling Program Update 2023 for further information. If you have any questions please feel free to contact our office. Thank you.

Conferences: Go to the [IPMnet Conference Page](#) for links and details on these programs.

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

June 28, 2023 (1-3 p.m.)

[IPM Scouts' Diagnostic Session](#)

Location: CMREC, Ellicott City, MD

July 26, 2023 (1 - 3 p.m.)

[IPM Scouts' Diagnostic Session](#)

Location: CMREC, Ellicott City, MD

October 11, 2023

FALCAN Truck and Trailer Seminar

Location: Urbana Fire Hall, Urbana, MD

Commercial Ornamental IPM Information
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