

Commercial Horticulture

August 11, 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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Incredible Storm Damage to Trees from August 7 Storm

By: Stanton Gill

Parts of Montgomery County, Howard County, Frederick County, Baltimore County, and Carroll County were hit with an incredible storm that dropped full-sized trees, broke major branches off trees, and splintered white pines. In some of the areas I visited in Carroll County, it looked like a missile hit the area. Large trees were toppled over with roots exposed. On route 140 in Westminster, a large number of telephone and electric poles were blown over smashing into commuters' cars and trapping them inside for 5 hours until rescue people could reach them. Route 140 is closed through Sunday August 13th. Power was out in many areas for several hours to many days, depending on in which county you live.

Three large orchards just north and west of Biglerville, PA were hit with significant sized hail that destroyed 50 - 75% of their peach and apple crops.

What is in store for the rest of the summer-fall season? NOAA has a new model to help produce hurricane forecasts this season. The [Hurricane Analysis and Forecast System \(HAFS\)](#) was put into operations on June 27 and will run alongside existing models for the 2023 season before replacing them as NOAA's premier hurricane forecasting model.

NOAA describes this as "strong start" of hurricane season for 2023. Let's hope this was the strongest one we get for 2023.

No Report on August 18

There will not be a report on August 18, 2023. The next report will be sent out on August 25, 2023.

Spotted Lanternfly

By: Stanton Gill

My goodness! We are getting an endless, steady stream of electronic pictures being sent in of adult spotted lanternflies in most parts of Maryland. Some are pictures of adults sitting on flowers, some on vegetable plants, most are on ailanthus trees and walnut trees trunks. They are actually a very photogenic insect. The adults are now producing large amounts of honeydew which is attracting wasps and bees to the sites at which spotted lanternfly adults are feeding. the adults are extremely fast. If you try to capture them, it is extremely difficult.



**A *Polistes* paper wasp feeding on a spotted lanternfly.
Photo: Mark Schlossberg, ProLawn Plus, Inc.**



**This adult was seen in Mt. Airy on August 5th.
Photo: Jeanne Garrigues, City of Frederick**

Mark Schlossberg, ProLawn Plus, Inc., sent in a picture of a *Polistes* wasp feeding on the carcass of a spotted lanternfly. In 2022, Brian Kunkel, UDel, and I recorded large populations of European hornets, *Polistes* wasps, and assassin bugs feeding heavily on spotted lanternfly adults. Yeah for the predators that will be fighting against this invasive beast.



**This bright pink adult spotted lanternfly in Harrisburg, PA looks like it recently emerged.
Photo: Leah Krebs, Good's Tree and Lawn Care**



**Deana and others at the AgCenter in Baltimore County watched this wheel bug stalk the SLF adult for 15 minutes. Deana noted "on attack the SLF got away. But it tried!"
Photo: Deana Karras, UME Master Gardener-Baltimore County**

Twobanded Japanese Weevil Active in August

By: Stanton Gill

Richard Uva sent in pictures that his daughter, Pearl, took of twobanded Japanese weevils feeding on foster holly in their nursery on the Eastern Shore. This is not a pest you want in your nursery. Once it is there if you ignore it, it will spread and stay with you like a very unwelcome house guest. We have had it show up in nurseries over the years and it is rather difficult to control unless you are right on top of the outbreak. Twobanded Japanese weevil, *Pseudocneorhinus bifasciatus* was is an imported pest that was first collected and identified way back in 1914 in Philadelphia. It has moved around through plant material that was either infested with the larvae in the root zone or adults hiding on stems of plants carried into nurseries. The twobanded Japanese weevil is native to China, Japan, Korea, Mongolia, and eastern Siberia.



Twobanded Japanese weevils feeding on holly leaves.
Photos: Pearl Uva, Seaberry Farm

The adult twobanded Japanese weevil is stout, convex, and pear-shaped with a short, blunt snout, and elytra much broader than the pronotum. It is about 5 mm long and has a body covered with brown and gray scales that form bands across the elytra. Twobanded Japanese weevils are known to feed on over 100 species of plants (Boyd and Wheeler 2004). Richard found it feeding on foster holly, but I generally see it on rhododendrons, Taxus yews, astilbes, and sedums in Maryland.

The reason I tell you that YOU, or someone at your nursery, must bring this pest into your nursery in most cases, is that it cannot fly. The elytra are fused and due to lack of flight wings, the adult weevils cannot fly. Besides being flightless, you just need females to obtain a ripping population. The weevil reproduces parthenogenetically, and males are generally not encountered in the United States although they are known to occur in China. The weevils feed during the day but are less apparent because of their subdued brown coloration and markings. The famous USDA entomologist and good friend, Dr. Floyd Smith, described this insect in refereed journals back in 1955. Dr. Smith owned a nursery in Ashton, MD, and he showed me this pest years ago and told me do not let nursery owners bring this pest into their nursery.

The twobanded Japanese weevils can be collected and destroyed if infestations are not extensive. They feed during the day, and when disturbed, quickly drop to the ground and remain still or feign death. This behavior makes it convenient to collect them by tapping or shaking the plant. A white sheet of cloth or paper could be laid out under the shrub to catch them as they drop. **For chemical control**, we have used acephate in nurseries to control adults with good success. In container nurseries we have used the Hb strain of beneficial nematodes with good results.

Giants of August

By: Sheena O'Donnell, UME

In late summer, we start to see some of our larger insects come out - some can look pretty scary, but most of the time they're harmless. The native insects, hickory horned devil & Hercules beetle, are two examples.

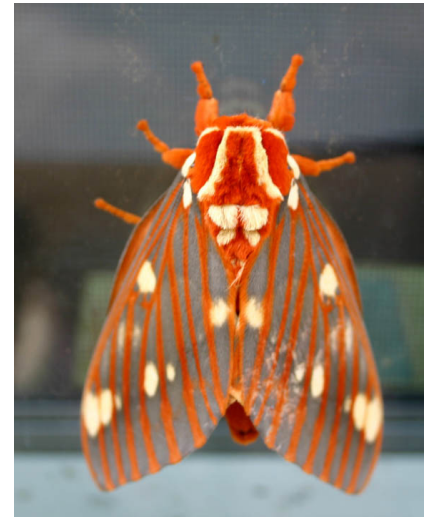
Hickory horned devil is a menacing looking caterpillar but it's totally harmless. The adult stage of this moth is the nocturnal regal moth, with a wingspan of up to 6 inches long. Larvae hatch in mid-summer and feed in the trees for about 35 days until dropping to the ground to search for a good pupation site. It is during this time that they are usually found crawling around on the ground before they go underground to pupate. Typical hosts include trees in the walnut family, hickories, and pecan. It has been seen feeding on other plants such as persimmon, sweetgum, and lilac, but in any case, the damage that these caterpillars inflict is usually minimal and not a threat to the tree.

The Hercules beetle, similar to the hickory horned devil, is also menacing-looking and harmless. This huge beetle is strong - the males have large horns that they use to fight each other over breeding grounds. Males do not use their horns to hurt humans, and females do not have the horns. These beetles develop in rotting wood, making them very important biodegraders in the ecosystem. Larvae feed on (and therefore break down) dead wood & tree trunks, and enrich the soil while doing so. Adults feed on rotting fruit that has fallen to the ground, furthering the biodegradation services that they provide. These beetles overwinter as larvae in dead/rotting material and their life cycle can last up to 2 years.

Do not kill either of these insects, no matter how scary they look. They are native to our area and provide important ecosystem services from which we benefit.



Hickory horned devil caterpillar.
Photo: Clemson University - USDA
Cooperative Extension Slide Series ,
Bugwood.org



Regal moth - the adult of the hickory horned devil.
Photo: Suzanne Klick, UME



Hercules beetle grub (top), adult female (middle) and adult male (bottom)
Photo: Suzanne Klick, UME

Extensión en Español

Check out [Extensión en Español](#), a Spanish language blog by two UMD professors, Anahí Espíndola (Entomology) and Macarena Faruh (Plant Sciences & Landscape Architecture). They cover a range of topics, including fruit, pollinators, pests, soils, and pesticides.

August – A Month of Caterpillars

By: Stanton Gill

In August, the multitude of caterpillars are actively feeding on the foliage of trees. If your customers are tolerant, then defoliating a plant his late in the season is generally not going to kill the tree. If you are a chrysanthemum grower, then watch out. Corn earworm, corn borer, saltmarsh caterpillar, and an array of other moths are highly attracted to your crop in August. Spinosad and Mainspring both work well on these caterpillars.



This cottonwood dagger moth caterpillar is one of the many caterpillars active in the landscape in late summer.

Photo: Luke Gustafson, The Davey Tree Expert Company

Deer Activity

Be on the lookout for deer in landscapes damaging plant material, but also along the side of the road to avoid a collision.

This summer, with the unusual weather, we are getting an abundance of calls reporting adults active in daylight hours. In most years, they are active in the mornings and evenings. Also, if you have a nursery, make sure you protect trees because the males are doing buck rubs at this time of year.



Right before spotting these two bucks a landscape in Baltimore City, Luke saw deer browse on nearby properties.

Photo: Luke Gustafson, The Davey Tree Expert Company

Galls on Oak

Sam Fisher, Bartlett Tree Experts, found galls on a white oak seedling in D.C. this week. Galls may look on unsightly, but they usually do not impact the overall health of the tree.

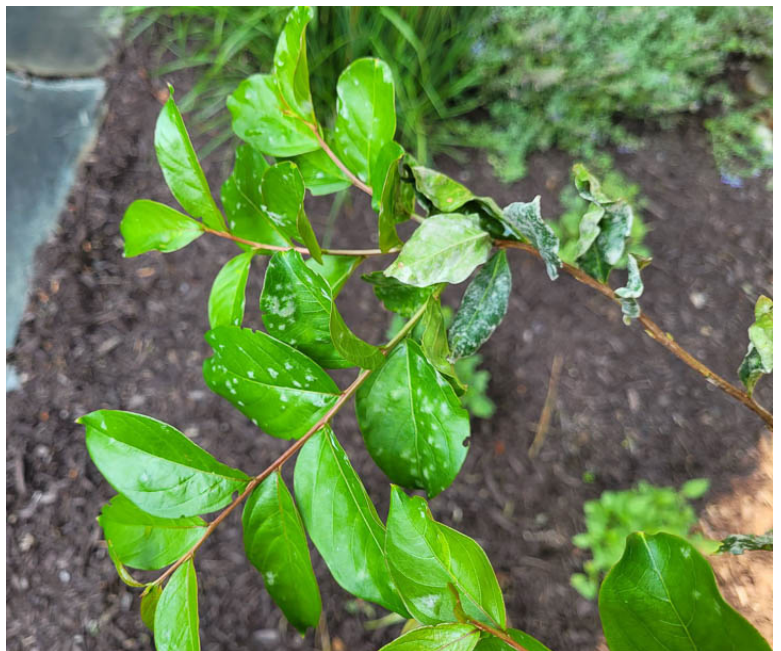


Galls on white oak.

Photo: Sam Fisher, Bartlett Tree Experts

Powdery Mildew

Environmental conditions continue to be good for powdery mildew infections. At this time of year, damage from earlier infection periods is present. Luke Gustafson, The Davey Tree Expert Company, found old powdery mildew damage and newer infection on a property in Baltimore County.



Damage from powdery mildew infections on old and new crape myrtle foliage.

Photo: Luke Gustafson, The Davey Tree Expert Company

Time of the Year When Yellowjackets and Wasps Get Feisty

By: Stanton Gill

I was at a Home Depot on Monday during lunch picking up some cable ties. I ran into a landscaper pushing along a shopping cart. He had 12 spray cans of insecticide. I asked what all of these cans were for. He said their workers are running into an unreasonable number of yellowjackets and various wasps that are stinging their workers as they clean up landscapes.

When it gets hot and humid, people's attitude tends to become aggressive. It is the same in the insect world and many wasp species get very protective of their nest areas in August during the heat of summer. In the cool of the morning they tend to be less aggressive. Once it heats up the aggression tends to go up. In an ideal world, we would work around their schedule, but the reality is workers are working all day and are going to have run-ins with wasps.



Be on the lookout for yellowjackets and other wasps, especially their nests, when working in the landscape.

Photo: Suzanne Klick, UME

Dogwood Sawfly Larvae

By: Stanton Gill

Abigail Beall, Empire Landscape, found dogwood sawfly larvae on *Cornus amomum* (silky dogwoods). Dogwood sawflies (*Macremphytus tarsatus*) are native to much of the eastern US and Canada. They are a wasp species whose caterpillar-like larvae feed on the foliage of dogwoods in groups. Most of the damage is done at this time of year. If treating, do it in late June to early July when larvae are early instars. Spinosad is a safe control material that works well.



When dogwood sawflies reach the last larval instar, they are yellow and black. Then, they will drop the ground to find a place to pupate.

Photo: Abigail Beall, Empire Landscape

Southern Blight on Hosta

By: Karen Rane and David L. Clement

We've had several samples of declining hosta come in recently. Upon inspection the signs and symptoms of Southern Blight were evident. The disease is caused by the fungus *Athelia rolfsii* (formerly *Sclerotium rolfsii*), and symptoms include wilting and collapse of leaves and stems, followed by rotting of the plant at the soil line. When inspecting plants, look for white mycelium and tan sclerotia that resemble "millet seeds" on the lower stems, or the soil and mulch, around the base of the affected plant. The disease can spread through movement of contaminated soil and sclerotia, and the sclerotia can overwinter in our region. Southern Blight can occur on a wide range of plants, but is commonly found on aster, ajuga, black-eyed Susan, dahlia, daylily, gladiolus, hosta, and peony. Vegetables like tomato, pepper and beans, and even small woody trees and shrubs can be affected.

Management

Strict sanitation is critical for disease management. Check new plants for symptoms or sclerotia to avoid introducing the pathogen. Physical removal may be the quickest remedy for severe disease outbreaks. Carefully remove diseased plants and the soil/mulch, at least the top 3 inches and several inches around the stem, and discard – do not compost this material. Clean tools to avoid moving the pathogen in contaminated soil. Soil solarization, deep plowing, soil amendments and plastic mulches have limited effects on disease management. Ornamental grasses are not susceptible, and could be used in garden areas with a history of southern blight. Fungicides available to commercial applicators for ornamental plants include azoxystrobin, PCNB or thiophanate methyl. These treatments may help reduce disease spread, but will not cure infected plants.



Southern blight infection on hosta.

Tupelo Leaf Edge Galls – Two Types of Galls and Two Causal Agents

By: Paula Shrewsbury

In last week's newsletter Marie Rojas, IPM Scout, found damage (galling) on the edge of tupelo (*Nyssa* spp.) leaves. The causal agent of the tupelo leaf edge galls was stated as the eriophyid mite, *Aceria dina* (Eriophyidae) OR the phylloxerid, *Phylloxera nyssae* (Phylloxeridae; relatives of aphids and adelgids), both of which cause galling on the edges of tupelo leaves and distortion of the leaves. In seeing this, I decided to look into the Tupelo galls further and I found several references (see links below) that describe the damage caused by each of the mentioned causal agents. *Aceria* and *Phylloxera* cause galls on the edges of Tupelo leaves that look very different from one another. The tupelo leaf edge gall in [last week's IPM Newsletter](#) was caused by the leaf curling gall aphid (phylloxerid, *P. nyssae*). This just so happens to be the causal agent of leaf edge galls on the *Nyssa* in my yard (see image) that has been occurring for the last 4-5 years, with some years showing greater damage than others. Mike Raupp (UMD) did a "[Bug of the Week](#)" episode on this phylloxerid. Also [see Raupp's YouTube video where he unrolled the leaf edge gall showing an adult phylloxerid and her eggs.](#)

What are the differences that help distinguish the Tupelo leaf edge galls caused by *A. dina* and *P. nyssae*?

Galls caused by the eriophyid mite, *A. dina*, are densely curled in various places around the edge of the leaf giving a "scalloped" appearance to the leaf edge, and the gall color ranges from green to red to brown (see image). Whereas, the phylloxerid, *P. nyssae*, presents as deeply incised and crescent-shaped rolled galls on the edge of *Nyssa* leaves formed from smooth yellowish folds, in addition to significant leaf distortion on the developing leaves (see images).

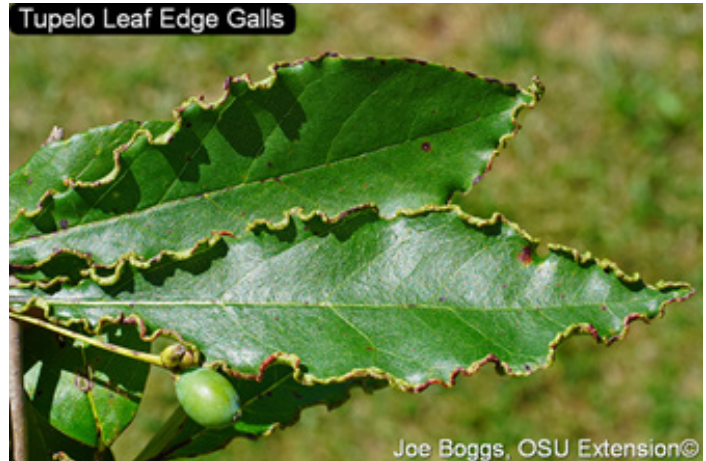
Both of these galls are not known to detrimentally impact the health of the tree and are mainly aesthetic so there should be no need to control them. In addition, to my knowledge, there are no chemical controls that have been shown to control these leaf galling organisms.

Resources for additional information and images of leaf edge galls on Tupelo:

Information on the differences between the two types of leaf edge galls on Tupelo
- <https://www.gallformers.org/gall/701>

Great images of the Tupelo leaf curling gall caused by the phylloxerid, *Phylloxera nyssae*.
- https://www.inaturalist.org/taxa/466561-Phylloxera-nyssae/browse_photos

Great images of the Tupelo leaf edge gall caused by the eriophyid mite, *Aceria dina*.



Tupelo, *Nyssa* spp., showing damage on the leaf edge caused by the eriophyid mite, *Aceria dina*.
Photo: by J. Boggs, OSU



Early in the growing season, phylloxerids induce small crescent-shaped galls along the margins of Tupelo (*Nyssa* spp.) leaves.
Photo: M.J. Raupp, UMD

- https://www.inaturalist.org/taxa/911512-Aceria-dina/browse_photos

Good information on the biology, image, and video of the Tupelo leaf curling gall caused by the phylloxerid, *Phylloxera nyssae*.

- <https://bugoftheweek.com/blog/2020/11/16/tiny-culprit-behind-my-gnarly-nyssa-a-leaf-curling-gall-aphid-phyllaxerina-nyssae?rq=Tupelo>



Tupelo, *Nyssa* spp., showing damage (yellow galls on leaf edges and leaf distortion) to developing leaves caused by the phylloxerid, *Phylloxera nyssae*. Photo: P.M. Shrewsbury, UMD

Predator of Aphids

After a spring and early summer with high aphid populations and beneficial insect activity, predators continue to be active on aphids. Luke Gustafson, The Davey Tree Expert Company, found a syrphid fly larvae feeding on aphids on American burn weed.



This syrphid fly larva has plenty of aphids to eat. Photo: Luke Gustafson, The Davey Tree Expert Company

Beneficial of the Week

By: Paula Shrewsbury

Fall web worm and its natural enemies

Fall webworm, *Hyphantria cunea* (Erebidae), caterpillars seem to be having another good year. I have seen an abundance of fall webworm caterpillars, their webbed nests, and defoliation damage as I drive around MD (ex. Howard, Prince Georges, Frederick, and Washington Counties). I recall 2019 and 2021 were also years with high fall webworm activity in MD. Fall webworms are native to North America and have two generations in our area. They are highly polyphagous and reported to feed on over 600 species of plants including row crops, herbaceous plants, shrubs, fruit trees, and ornamental trees in landscapes, nurseries, and natural areas. They feed on over 90 species of trees, but their most common hosts in the eastern U.S. include black walnut, American elm, pecan, hickory, crab apples, persimmon, box elder, some maples, sweetgum, and fruit trees (cherry, apple). Their feeding does not usually cause long term damage to trees. Most of their feeding is done later in the season when trees have already had time to photosynthesize and produce the energy they need to stay healthy. In ornamental landscapes, it is also a nuisance pest due to its large unsightly nests. Fall webworm can be a major pest in fruit tree orchards.

What eats fall webworms? Over 86 species of dipteran (fly) and hymenopteran (wasp) parasitoids, predators, and pathogens are reported to feed on fall webworm, including birds, lizards, parasitic tachinid flies, wasp parasitoids, stink bugs, beetles, spiders, and social wasps such as yellow jackets and paper wasps. Some of these natural enemies attack the larval stage (caterpillars), while others attack the pupal stage. Fall webworms also serve as a host insect for several biological control agents introduced to control gypsy moth such as baculovirus (NPV), granulovirus (GV), and *Bacillus thuringiensis* (Bt).



Adult *Hyposoter exiguae* wasp is laying an egg in an early instar caterpillar.

Photo: Jack Kelly Clark, UC IPM

Wasp predators, such as *Polistes fuscatus* and *Vespula maculifrons* (Vespidae), and a parasitoid, *Therion sassacus* (Ichneumonidae) have been observed penetrating fall webworm webs to prey on the larvae inside. In 2019, I was fortunate enough to see a *Polistes* (paper) wasp attacking fall webworm. I was observing a webbed nest of fall webworm and after a few minutes I noticed many of the caterpillars in the nest were “twitching” in unison, which is believed to be a defensive response of fall webworms. Within seconds I saw why the caterpillars were twitching. A paper wasp (*Polistes* sp.) walked from the underside of the webbed nest to the top where I could closely observe it and take pictures. As I observed, the wasp began pulling at the webbing with her front legs and mandibles (see image). After about 15 seconds the wasp was able to get through the webbing and grab a caterpillar with her mandibles (jaws). The wasp, with its newly caught prey, walked to the upper edge of the webbed nest where it proceeded to macerate the caterpillar (see image) and [click here to see a video](#) (Bug of the Week, M.J. Raupp) of this wasp “processing” the caterpillar with its mandibles. Note how the prey starts off looking like a caterpillar and ends up as a macerated ball of food. Also notice the webworm caterpillars still in the nest twitching. Because paper wasps consume large numbers of caterpillars (not just fall webworm) they are our beneficial allies because they reduce populations of caterpillars that feed on and damage ornamental plants. Their nests should be left alone if they do not threaten humans. In the spring, nests being formed in locations near lots of human activity where they might pose a threat (ex. doorways), can be destroyed by using a strong water stream or a broom to knock them down. Later in the season, larger nests should be approached more cautiously, perhaps with a wasp spray used according to label directions. If not a threat to humans, they should be left alone so they can perform their biological control services.



The cocoon of a *Hyposoter* species found in Maryland next to the shriveled-up body of a tussock moth caterpillar that it parasitized.

Photo: R. Orr, MD Biodiversity Project

At least 50 **parasitoid** species are known to attack fall webworm, most notably *Hyposoter* spp. (Ichneumonidae). In addition to being a parasitoid of fall webworm caterpillars, *Hyposoter* spp. also attack numerous other caterpillar species including armyworms and cutworms (Noctuidae). It is a solitary internal

parasitoid and the adult female lays her eggs in early instar larvae. Species of *Hyposoter* wasp adults are ¼ - ½” in size and usually larger than the early instar caterpillars that she lay her egg into (see image). After the *Hyposoter* larvae develops inside its caterpillar host, it pupates and the cocoons are found on leaves, often near the shriveled-up body of the caterpillar it parasitized.



This *Polistes* (paper) wasp is macerating its prey, a fall webworm caterpillar that the wasp pulled out of the webworms nest. The wasp will bring the macerated prey back to its nest to feed to wasp larvae.
Photo: P.M. Shrewsbury, UMD

Even with all the natural enemies that attack fall webworm there are years when there are still high densities. This is not surprising since other factors such as host tree abundance and quality, and environmental factors (drought, heavy rain) have been shown to influence fall webworm populations. In years when densities are high, the best control for fall webworm is to prune out the webbed tents (if in reach) or use a long stick to rip open the tent and knock out all the caterpillars. Most caterpillars will not make it back into the tree. Pesticides usually don't work well because the webbed tents are difficult to penetrate, reducing the effectiveness of sprays.

Weed of the Week

By: Nathan Glenn and Chuck Schuster

Common purslane, *Portulaca oleracea*, is a prostrate, succulent summer annual that likes to form a mat. It is found throughout the United States in most cultivated crops, home gardens, and annual flower beds. Common purslane, also known as pusley, pursley, and wild portulaca, has been grown for more than 4,000 years for its nutritious and medicinal qualities—it was traditionally used as an ointment for burns. Thought to be native of Europe, it's succulent nature and drought resistant abilities hint at a more desert-type area of origin.



The root system of common purslane.
Photo Courtesy of West Virginia Univ.

As you work your way through a dichotomous key to identify common purslane, it can be sorted out from the rest of the dicot weeds by the opposite arrangement of its lower leaves; by its non-square, low, prostrate, ascending stem; by its leaf blades which have a smooth, nearly hairless upper surface; by its lack of milky sap exuding from cut foliage; and by its vegetative stem leaves being greater than 5 millimeters wide. Even further, common purslane can be differentiated by its purplish red stem, and wedge-shaped and sessile leaf blades. The yellow flowers, which are 3/8 inch wide with five-petals, are borne singly in leaf axils and open only in sunshine. Common purslane is a prolific seed producer.

In home landscapes and gardens, this weed is generally managed by cultural means such as hand-weeding and mulching. For mulch to be effective it needs to cover the soil to prevent sunlight from reaching the soil (isn't that the goal anyway) but not too deep. Landscape fabric, which screens out light, also provides a physical barrier to seedling development.

Use of non-selective post emergent herbicides can provide good control. Several pre emergent herbicides are registered for control of this weed and include products which contain isoxaben (Gallery), oryzalin (Surflan), pendimethalin (Pendulum), and trifluralin (Treflan). Scout areas now to determine where pre emergent herbicides need to be placed next spring.



**Common purslane has prostrate, ascending stems.
Photo Courtesy of UC Davis**

Plant of the Week

By: Ginny Rosenkranz

Rudbeckia 'American Gold Rush' is a cultivar of our native *Rudbeckia* also known as Black Eyed Susan. *Rudbeckias* are clump forming herbaceous perennials that thrive in full sun and prefer moist but well drained soils. Once established they are able to tolerate drought, high heat and humidity. 'American Gold Rush' is a compact form, growing 18- 14 inches tall and wide, and blooms with bright golden yellow ray florets that surround a black central eye of disk florets. The sunny daisy like flowers expand to 2 inches across and sit on branching upright stems from July to September. The plants are cold tolerant in USDA zones 3-9, and when in flower attract butterflies and other pollinators. The foliage of 'American Gold Rush' are also smaller than the species with hairy 2-inch-wide leaves that have improved resistance to Septoria leaf spot. These bright blooms fit into cottage, cutting and native gardens in groups or as a mass planting. They are listed as resistant to deer browsing but that depends on the population of the deer, mine are trimmed to the ground in early summer until the soybeans offer a better meal. Pests can include aphids, downy and powdery mildew, and aster yellows.



***Rudbeckia* 'American Gold Rush' is a clump forming herbaceous perennial.
Photo: Ginny Rosenkranz, UME**

Degree Days (as of August 9)

Abingdon (C1620)	2399
Annapolis Naval Academy (KNAK)	2589
Baltimore, MD (KBWI)	2650
College Park (KCGS)	2522
Dulles Airport (KIAD)	2557
Ft. Belvoir, VA (KDA)	2438
Frederick (KFDK)	2432
Gaithersburg (KGAI)	2325
Gambrills (F2488, near Bowie)	2481
Greater Cumberland Reg (KCBE)	2168
Perry Hall (C0608)	2310
Martinsburg, WV (KMRB)	1937
Natl Arboretum/Reagan Natl (KDCA)	2915
Salisbury/Ocean City (KSBY)	2583
St. Mary's City (Patuxent NRB KNHK)	2948
Westminster (KDMW)	2667

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 **1937 DD** (Martinsburg, WV) to **2948 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.

- Orangestriped oakworm – egg hatch / early instar (**1917 DD**)
- Magnolia scale – crawler (**1938 DD**)
- Fall webworm – egg hatch / early instar 2nd gen (**1962 DD**)
- Maskell scale – egg hatch / crawler 2nd gen (**2035 DD**)
- Euonymus scale – egg hatch / crawler 2nd gen (**2235 DD**)
- Mimosa webworm – larva, early instar 2nd gen (**2260 DD**)
- 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**)

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

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

September 13, 2023

MAA's Day of Safety and Health

Location: Howard County Fairgrounds, West Friendship, MD

Registration info: <https://safetyandhealth23.eventbrite.com/>

September 13, 2023

MNLGA Nursery Field Day

Location: Abby Farms, Waldorf, MD

[Registration is now open](#)

October 11, 2023

FALCAN Truck and Trailer Seminar

Location: Urbana Fire Hall, Urbana, MD

2024 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 8 - Thursday, January 11, 2024 from 8:00 am – 3:00 pm

Lab dates: Monday, January 8 - Thursday, January 11, 2024 (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

Montgomery College Classes

The Environmental Horticulture and Sustainable Agribusiness (HORT) program at Montgomery College offers a variety of horticulture courses that will benefit just about anyone -- the professional landscaper, avid gardener, or anyone who loves plants and the environment! Classes begin August 28 and will be offered in a variety of formats, face-to-face, online or hybrid. Hybrid classes will have the lecture portion online, with selected labs as in-person field trips.

Students can take any of these classes for credit or audit.

Scholarships are available to HORT majors.

Students who work in the industry are eligible to pay the in-county tuition rate.

Senior registration starts on August 24 - Maryland residents who are 60 years of age or older at the time of registration pay only fees.

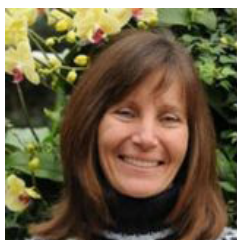
For further information about the program or courses, contact: Steve Dubik--steve.dubik@montgomerycollege.edu

Commercial Ornamental IPM Information
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