

Commercial Horticulture

August 23, 2024

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Beneficial of the Week:

Bumble bee on mallows

Weed of the Week: Yellow nutsedge

Plant of the Week: *Coreopsis grandiflora* 'Sunfire'

Pest Predictive Calendar

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: 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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Rain - Very Uneven in Maryland Over the Last Two Weeks

By: Stanton Gill

In Central Maryland on August 8 and 9, the area received close to 5" – 6" of rain. On August 16-18, we had several heavy downpours, but just in isolated spots. I was driving from Westminster to Brookeville on Sunday afternoon and drove into a heavy downpour on Rt. 97 just south of Rt. 32. It poured down rain for 10 minutes. I continued down Rt. 97 south and drove on perfectly dry roadway for 6 miles and entered another heavy downpour that lasted 2 miles, then into dry roadway for another 5 miles. Finally, when I reached Brookeville it had had a downpour lasting 15 minutes.

I spoke with David Vismara, formerly of Maryland National Park and Planning Commission. He said in Wheaton, they had every rain storm just pass them by for the last 7 weeks and lawns were still brown in their area.

You will want to note these spotty dry areas for 2024 since these areas are still under major drought stress and plant material will continue to suffer in these isolated "rain-free" areas.

Fall Armyworms

We received a report of fall armyworms in College Park today. Monitor turf closely for these caterpillars.

Boxwood Leafminer

Luke Gustafsen, The Davey Tree Expert Company, is reporting that boxwood leafminer damage is becoming more noticeable this time of year as the larva continue to feed and grow. Luke saw leaf blistering on boxwood within active larvae within the leaf in Catonsville on August 22. Now that boxwood leafminer larvae are coming out of diapause and feeding again, you can use a systemic or translaminar insecticide for control.



If you see chlorotic areas on the top of boxwood leaves, split open the leaf and look for leafminer larvae. Luke found small larvae within these leaves.
Photos: Luke Gustafson, The Davey Tree Expert Company

Tree Crickets

Tree crickets are active on landscape plants at this time of year. Paul Wolfe, Integrated Plant Care, found damage to cherry laurel this week.



Tree crickets caused this damage on this cherry laurel leaf.
Photo: Paul Wolfe, Integrated Plant Care

Spotted Lanternfly (SLF) Update

By: Paula Shrewsbury

It's been about a month since we started to see adult activity in MD. Now SLF adults are being found in numerous locations, although they are patchy in their occurrence. Some locations have more SLF than last year and others seem to have fewer. For example, this year in Columbia MD the numbers of SLF and number of locations where SLF are active are much greater than they were last year at this time. The good news is that many landscapers in PA and MD have reported that the general pattern is for SLF densities to be high in a given location for about 3 years and then the numbers go way down. There are a number of possible factors that may be influencing this pattern such as a build-up of natural enemies (ex. predators, pathogens), changes in host plant quality, implementation of pest management practices, etc. It is likely a combination of factors.

This week I was at one of my research sites where there are tree-of-heaven and high densities of SLF adults. The amount of honeydew, fermenting honeydew, black sooty mold, and more recently a **tan sooty mold fungus** was impressive (see image). Miri Talabac (UME HGIC) had a report of this tan fungus on SLF honeydew a few weeks ago. This tan sooty mold fungus looks similar to a fungus, *Scorias spongiosa*, associated with the Beech blight aphid honeydew. I have not found any information on the identification of the tan fungus associated with SLF or if it is related to *Scorias spongiosa* or not.

The other biological event that is occurring are females with swollen abdomens which indicate they are full of eggs. Adult females (females are larger than males with a red structure at the tip of the abdomen) with eggs, have swollen abdomens that are yellow with black stripes (see image). Given this and the time of year, I predict we will start to see egg masses being laid in the near future.

If you see **SLF egg masses**, please contact Stanton Gill (sgill@umd.edu) and me (pshrewsbury@umd.edu) and let us know where and on what host / structure you see the egg masses.



Base of a tree-of-heaven with high densities of SLF adults showing fermenting honeydew, black sooty mold, and a tan sooty mold fungus that I have seen for the first time associated with SLF honeydew.

Photo: P.M. Shrewsbury, UMD



Spotted lanternfly female with her abdomen swollen and full of eggs.

Photo by S. Muller, MD Biodiversity Project

Pine Cone Galls on Oak

Marie Rojas, IPM Scout, found pine cone galls on oak stems this week. They start out pink and turn tan to brown as they mature. They are caused by a small cynipid wasp. No control is necessary.



Pine cone galls on oak resemble acorns, but they are along the stems and not on the tips.

Photo: Marie Rojas, IPM Scout

Mosquitoes and Small Ornamental Ponds

By: Stanton Gill

If your customers have small ornamental ponds and bird baths without running water, you may see an increase in mosquito populations in their landscape. They can apply mosquito dunks in the pools of water to reduce the larval stages of mosquitoes. Mosquito dunks contain *Bacillus thuringiensis israelensis*. You can use them in places like flower pots, bird baths, rain barrels, ornamental ponds, and unused swimming pools. Avoid using them in water that flows into natural bodies of water, as they can also kill other aquatic insects. One dunk can treat up to 100 square feet of water, which is about the size of a car parking space. If you need to treat a smaller area, you can break the dunk into pieces. They should last about 30 days.

Tick Activity Continues to be High This Week

By: Stanton Gill

In the areas that have received rain over the last week, we are seeing a lot of activity of black legged ticks, *Ixodes scapularis*, and the lone star tick, *Amblyomma americanum*. In the areas receiving rain, the weeds are growing like crazy this week. Tall weeds and grasses are perfect areas for tick populations. Have your workers apply Deet repellent and check themselves at the end of each day for ticks. Whole body examinations are probably a good idea at the end of each workday.



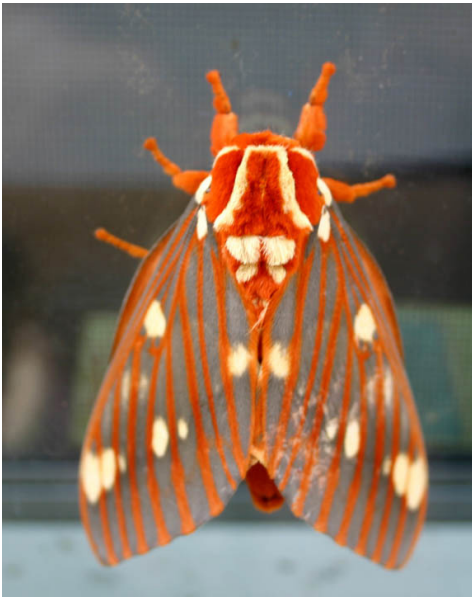
Underside of blacklegged tick.

Photo: Stanton Gill, UME

Hickory Horned Devil Caterpillar

By: Clover Davis, UME Intern

The hickory horned devil is the caterpillar of the regal moth (*Citheronia regalis*), and one of the biggest caterpillars in Maryland. It favors walnut and hickory as hosts, but can also be found on sweetgum, persimmon, pecan, and sumac. It is common in the deep south, but its range has shrunk since the mid-20th century. The caterpillar's later stages grow curved spines, earning it the "horned devil" part of its name, but these spines are entirely for show as they are harmless. It causes minimal damage when it feeds, so no control is necessary.



The regal moth is a bright orange color and is easy to spot.
Photo: Stanton Gill, UME



Hickory horned devil caterpillars look menacing, but they are not.
Photo: Clemson University - USDA Cooperative Extension Slide Series , Bugwood.org

Yellow-necked Caterpillars

Marie Rojas, IPM Scout, found yellow-necked caterpillars feeding gregariously on *Fagus sylvatica* 'Riversii'. This caterpillar feeds on a variety of woody plants. We will see activity into October. There are predators and parasitoids, including tachinid flies that prey on these caterpillars.



These yellow-necked caterpillars are clustered and feeding along this beech stem.
Photo: Marie Rojas, IPM Scout

Parasitic Wasps

With all of the caterpillars active this late summer, it is good to know there are ichneumon wasps that will parasitize some of the caterpillars. Chris Kanarr found these pupal cases of the wasp that parasitizes the caterpillar.



These wasp cocoons are a parasitoid of caterpillars.
Photo: Chris Kanarr

Powdery Mildew on Crape Myrtle

Stephen Beegle found powdery mildew infecting crape myrtle in Crofton this week. Sunny days and cool nights provide optimal humidity conditions around the leaves for powdery mildew infection.



Powdery mildew infection on a crape myrtle.
Photo: Stephen Beegle

Beech Blight Aphids

By: Clover Davis, UME Intern

The beech blight aphid is a medium-sized, bluish-gray aphid covered in long waxy filaments. It cycles hosts between the American beech tree and the bald cypress, excreting copious amounts of honeydew. Sooty mold grows on the honeydew and is most obvious as colonies reach their peak in September and October. If brushed with bare skin, the aphids will use their mouthparts to "sting" the attacker, but they have no venom and cannot inflict anything beyond mild discomfort. Heavy infestation can cause branch dieback, but tree mortality is uncommon, unless the tree is undergoing other stressors as well. The main reason for control is the unsightly appearance of infestations and the resulting sooty mold. For minor colonies, the insects can be physically removed with a jet of water. Natural control consists of parasitoid wasps and beneficial predators, which are most effective in the long term. For more severe infestation, any insecticide labelled for aphids will work, including horticultural oil sprays and insecticidal soaps.



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Beech blight aphids are also called 'boogie woogie' aphids because they move in unison when threatened.

Photo: Steven Katovich, Bugwood.org

Woolly Alder Aphids

Greg Kenel, Creative Landscapes by Gregory, found woolly alder aphids on alder trees this week. They can produce a lot of honeydew on which sooty mold grows. There are many predators and parasitoids that prey on these aphids. Often, control is not necessary. If you do have to treat, use horticultural oil or another product with minimal impact on beneficials. This aphid will be active on its alternate host, silver maple, in the spring.



These woolly alder aphids are active in the fall on alder trees.

Photo: Greg Kenel, Creative Landscapes by Gregory

Proposed Regulation in Maryland

Forwarded by Chuck Schuster

The Maryland Farm Bureau Labor Committee Wants You to be Aware of a Proposed Regulation. A proposed regulation is being pushed by Maryland Occupational Safety and Health (MOSH). MOSH has rolled out a proposed Heat Stress Standards to protect employees from heat stress-related illness as a result by CH. 308 H.B. 722 Acts of 2020. The summary posted on the Maryland Register can be viewed by following [this link](#):

Public comments can be submitted via email to dli.regulations+heat@maryland.gov

The main takeaways from this proposal are as follows:

Employers must monitor the heat index of an area where employees perform work

Employers will develop, implement and maintain an effective heat-related illness prevention and management plan in writing which will include:

- (1) How sufficient amounts of drinking water will be provided;
- (2) How employees will be provided sufficient opportunities and encouragement to stay hydrated by drinking water;
- (3) How to recognize the symptoms of heat-related illness, including heat exhaustion and heat stroke;
- (4) How to respond to suspected heat-related illness, including heat exhaustion and heat stroke;
- (5) How employees will be provided with sufficient time and space to rest in shaded or cool, climate-controlled areas to cool off;
- (6) How the employer will implement rest break schedules as necessary;
- (7) How the employer will consider environmental conditions, workload, required clothing, personal protective equipment, and alternative cooling and control measures when determining rest break schedules;
- (8) How employees will be encouraged to take rest breaks as needed to prevent heat-related illness;
- (9) How employees will be trained on the hazards of heat exposure and the necessary steps to prevent heat-related illness;
- (10) The use and maintenance of alternative cooling and control measures used to manage heat;
- (11) Procedures for heat acclimatization in accordance with Regulation .05 of this chapter;
- (12) Procedures for high-heat conditions in accordance with Regulation .08 of this chapter; and
- (13) The emergency response plan in accordance with Regulation .09 of this chapter.

Employers will create an acclimatization period of up to 14 days for employees newly exposed to heat or have been off work for more than 7 consecutive days (Please See .05 for further Acclimatization rules)

Shade areas (.06)

Drinking Water (.07)

High Heat Procedures kick in when heat index reaches or exceeds 90 degrees Fahrenheit in the area where work is being performed

- (a) A minimum rest period of 10 minutes for every 2 hours worked where employees are exposed to a heat index above 90 and below 100 degrees Fahrenheit; and
 - (b) A minimum rest period of 15 minutes for every hour worked where employees are exposed to a heat index above 100 degrees Fahrenheit; or
- (2) A rest period as provided for in the current National Institute for Occupational Safety and Health recommendations for work and rest schedules to manage heat exposures.

Please note that these are the largest takeaways, but there are additional stipulations for both emergency situations as well as training for employees. I recommend you all read the proposed rule in its entirety to gain the full impact of the proposed changes. As you all can see, this is an immediate impact on many farms, specifically those who deal with cattle, produce, and manual labor on their farms. If you do not have the time to submit comments, please contact Mitch Hopkins with Maryland Farm Bureau as soon as possible - (Email: mhopkins@marylandfb.org).

Euonymus Scale

Elaine Menegon, Good's Tree and Lawn Care, found euonymus scale in Lebanon, PA on August 22. The second generation is finishing up or has finished up its activity depending on your location. Monitor plants again next year for both generations.



Check euonymus scale populations to see if second generation crawlers are still active or not.
Photo: Elaine Menegon, Good's Tree and Lawn Care

Lecanium Scale

Greg Kenel, Creative Landscapes by Gregory, found lecanium scale infesting willow oak this week. They overwinter as immatures. When leaves drop, the scale moves from the leaves to the twigs. If we have a period of 3-4 days in a row in early November with temperatures above 55 °F, you can treat with 3% horticultural oil to reduce the population. There are also predators and parasitoids to help reduce the scale numbers. The lecanium scale species found in Maryland are in the crawler stage in our area in early June. Monitor next year to see if treatment with Talus or Distance is necessary.



Crawlers of the various species of lecanium scale found in this area are active in June.
Photo: Greg Kenel, Creative Landscapes by Gregory

Fall Boxwood Blight

By: D.L. Clement

Fall can be an active time for boxwood blight infection in Maryland landscapes. Especially as night time temperatures decrease causing dew formation.

The most characteristic symptoms of boxwood blight are brown leaf spots that lead to rapid defoliation, and black streaking on stems. This combination of plant symptoms leads to plant dieback.

The disease is caused by the fungus *Calonectria pseudonaviculata*. This fungus also produces resting propagules, (microsclerotia), that enable it to survive long periods in the soil surrounding infected boxwoods. Other susceptible hosts within the boxwood family include pachysandra, both Japanese spurge, *P. terminalis* and Allegheny spurge, *P. procumbens*, and sweet box, *Sarcococca*.



Have boxwood checked for boxwood blight if you have heavy defoliation of plants.

Photo: David Clement, UME-HGIC

Once introduced to a landscape, boxwood blight is very difficult and costly to control with fungicides. The major means of spread of this disease is by movement of contaminated plant material, however boxwood blight spores can also be spread on anything that comes in contact with infected plant material including pruning tools, clothing, shoes, irrigation hoses, wheelbarrows, and tarps, etc. Scout boxwood properties for early disease symptoms and submit samples for diagnosis. The best action is to promptly remove any diseased boxwood material including leaf debris to prevent disease spread to healthy plants. Fungicides can be used to protect plants from infection, or suppress disease development, but they will not cure boxwood blight. Do not compost boxwood debris, or plant material.

Ultimately the best management tool for this disease in our landscapes will be replacement of existing susceptible boxwood cultivars with resistant plants. There has been extensive evaluation of existing resistant boxwood cultivars (see references below). Recently, several new resistant boxwood cultivar lines have been released. These include the NewGen cultivars ‘Independence’ and ‘Freedom’ developed in North Carolina by Saunder’s Brothers, and the BetterBoxwoods cultivars, ‘Babylon Beauty’, ‘Renaissance’, ‘Heritage’, and ‘Skylight’ developed in Belgium. These new boxwood cultivar selections will have to further evaluated over time for Maryland landscapes.

Additionally, the United States National Arboretum has evaluated their collection of boxwood germplasm and have generated a number of hybrids that are currently at different stages of evaluation and selection.

References:

<https://apsjournals.apsnet.org/doi/10.1094/PHP-01-23-0002-RV>

[Best Management Practices for Boxwood Blight in Virginia Home Landscape](#)

Brown Marmorated Stink Bugs

Elaine Menegon, Good's Tree and Lawn Care, found brown marmorated stink bugs hanging out on a maple tree in Lititz, PA on August 22. Some areas might see clusterings of these stink bugs. Fortunately, many predators have brought these bugs to manageable levels.



Brown marmorated stink bugs clustered on a tree trunk.

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

Preying on Spotted Lanternflies

Many generalist predators feed on spotted lanternflies. Marie Rojas, IPM Scout, found a praying mantid feeding on one this week.



This wing is what is left of what the praying mantid had as a meal. Photo: Marie Rojas, IPM Scout



Beneficial of the Week

By: Paula Shrewsbury

A specialist pollinator of Hibiscus / Mallow plants – *Ptilothrix bombiformis*

Recently, I was walking the trail that loops around Lake Kittamaqundi in Columbia, MD where I noticed several bees, that at first glance looked like small, very cute bumble bees, flying around a patch of somewhat hard, bare soil bordering the lake. Taking a closer look, I noted there were numerous holes in the ground with turrets (mud chimneys) surrounding the hole and bees flying in and out of them. Of course, I had to further observe and take pictures of these bees. It turns out however that they were *Ptilothrix bombiformis* (thanks to Sam Droege, USGS, for the identification), a solitary ground nesting bee (family Apidae) also known as Rose-mallow bee or Hibiscus turret bee. *Ptilothrix bombiformis* are unique in that they are one of only two species in the genus *Ptilothrix* found in the US. *Ptilothrix bombiformis* occurs mostly in the eastern half of the US and its sister species occurs in Arizona and New Mexico. *Ptilothrix bombiformis* is a specialist bee that only pollinates plants in the Malvaceae family such as marsh mallow and Hibiscus species (ex. Rose of Sharon). This all made sense because in addition to *Ptilothrix* bees active around the lake, there were numerous patches of marsh mallow, *Althaea officinalis*, in full bloom. Both marsh mallow and *Ptilothrix* bees are found in habitats near water.

Ptilothrix bombiformis adults are active from mid-summer through early fall which coincides with the bloom period of Hibiscus species. Each female *Ptilothrix* builds vertical nests in soil that is hard-packed and near water. The *Ptilothrix* female flies to water, appearing to walk on the water, imbibes some water and returns to her home site where she regurgitates the water. The water moistens and softens the

soil so the bee can excavate its burrow, which usually has one to two cells (each cell will support a bee larva) in it. [In building her soil gallery, *Ptilothrix* creates small balls of soil, using the water she imbibed, which she rolls out of the gallery using her hind legs.](#) Characteristic to this species are mud turrets at the top of the entry hole and numerous small “mud pellets” of soil around the hole. A female *Ptilothrix* can make several nests in a season. Although *Ptilothrix* is a solitary bee, it is common to find aggregations of *Ptilothrix* in the same area.



***Ptilothrix bombiformis* bee with its head sticking out of its nest opening. Note the mud turret and pellets which were created when removing soil from its nest gallery.**
Photo: P.M. Shrewsbury, UMD



A *Ptilothrix bombiformis* bee foraging in a marsh mallow flower for resources to bring to its nest for its young.
Photo by M.J. Raupp, UMD

Once the ground nest is ready, the female *Ptilothrix* forages for nectar and pollen in the flowers of hibiscus species. At the lake they were foraging in the marsh mallow. The females make pollen cakes from this resource which they stock the nest gallery with, and then she lays an egg on the pollen cake. When the egg hatches, the larva consumes the food and develops. Once the nest is set with food resources and eggs, the female seals the opening of the nest entry hole with a plug of mud to prevent predators and parasites from getting in. Male *Ptilothrix* bees hang out in and search the flowers in hopes of finding a female and mating with her. Males can be somewhat territorial of a flower and scare off other males who try to enter.

It is interesting to watch the behavior of these bees. If you are fortunate to come across an aggregation of *Ptilothrix* ground nests or flowers of hibiscus or marsh mallow species, be sure to take the time to look for the *Ptilothrix* bees and enjoy their activity and be happy they are pollinating plants.

Weed of the Week

By: Mark Townsend, UME-Frederick County

Yellow nutsedge, *Cyperus esculentus*, is nothing short of prolific. Commonly misunderstood to be a member of the grass family, yellow nutsedge is in a class of plants known as the sedge family. Sedges are grass-like monocots, but are only distantly related to grasses. Yellow nutsedge's v-shaped, narrow, triangular-tipped, and vertically growing foliage lend the impression that it must be a grass! To distinguish, remember that "sedges have edges".

As a result of this misconception, yellow nutsedge can be difficult to control with approaches that are better suited for grasses. In this, some agricultural circles see yellow nutsedge as a serious challenge to weed control in crop production. The sedge family is quite large with some 5,500 known species distributed across the globe. Though we are most often faced with yellow nutsedge in the Mid-Atlantic, with purple nutsedge being commonly found in the Southeastern United States.



Photo 1: Yellow nutsedge primarily reproduces by tubers.
Photo: Chuck Schuster, UME, Emeritus

Most generally, sedges tend to be associated with wetter, poorly drained soils or in low-lying areas. Some sedge species are hydrophilic, meaning they are well adapted to living in low-oxygen soil conditions as they have developed alternative means of collecting oxygen.

Yellow nutsedge is a perennial weed that reproduces by seed and rhizome. Nutsedge gets the "nut" in its name as the plant propagates from a tuber that resembles a small nut. Its seed heads are small yellow to tawny brown spikelets ranging from .5 cm - 3 cm long. Plants are estimated to produce millions of seeds per acre; however the seeds have quite a low germination rate range of about 5-40%.

Control/Management Strategies

The adage, "the best weed control is dark" holds true for yellow nutsedge. Cultural control methods that promote crop health and canopy development to shade weeds remains one of the best practices in preventing yellow nutsedge from becoming a problem.

Yellow nutsedge prevalence has been reported to be correlated with low soil test phosphorus and calcium. Though not empirical, this is seemingly plausible. Low-lying, nearly anaerobic soils with poor microbially mediated nutrient mineralization rates have limited phosphorus availability. These soils may also exhibit "tightening" as cations, calcium in particular, are washed through the soil profile wherein yellow nutsedge may outcompete other species.

Given how yellow nutsedge primarily propagates through tuber development, any physical removal of the entire plant (tuber included) from the soil offers an effective option of management. This would include tillage or cultivation (6-8") in agricultural systems and hand-weeding in garden applications. Interestingly, some waterfowl species of birds have been observed digging nutsedge to consume its tuber. Similarly, the inclusion of hog-grazing in agricultural systems laden with yellow nutsedge has been reported to show reductions in yellow nutsedge populations as the swine root up the shallow tubers.

In turf applications products that contain sulfentrazone like Dismiss® have been shown to provide both pre-emergence and post-emergence control, though it is not labeled for pre-emergence. Prodiamine, in products like Barricade® + sulfentrazone is labeled for pre emergence control. Sulfentrazone plus quinclorac (Solitare®) is effective as a post emergent product, but will require more than one application, in some cases 30 days apart. Other products containing sulfentrazone include Q4 Plus®, Surge®, SureZone®, and TZONE®, but these products are labeled for suppression as they contain lower concentrations of the active ingredient. Other products labeled are bentazon found in Basagran®, which is labeled for use in tall fescue, the predominant species in this region; halosulfuron-methyl found in Sedgehammer® and Sedgehammer+® (Sedgehammer+ contains a surfactant), S-metolachlor found in Pennant Magnum®. Mesotrione (Tenacity®) is also labeled for post emergence control in Kentucky bluegrass, perennial ryegrass, and tall fescue. This product causes a bleaching of the weeds. Read the label to determine if a nonionic surfactant is needed. Control generally takes more than one application. Halosulfuron products are rated the best for control of this difficult weed in many studies.

In landscape and nursery settings, it was found that Pennant Magnum® (s-metolachlor), Sedgehammer®, and Casoron® (dichlobenil) worked well. Check labels to determine plant species that are safe for use with each chemical. Casoron® as a granular product (4G) can be applied as a pre-emergence product during the dormant season in nurseries but not in the container themselves. It requires moisture following application. Sedgehammer® works well in landscapes but should not be sprayed onto desired species of plant material.

When controlling yellow nutsedge in turf, always remember the following 5 points. 1) Follow label directions exactly. 2) Do not mow turf 2 days prior to application of the herbicide. 3) Use the proper volume of water and do not apply when the turf is stressed. 4) Be cautious near transitions of turf to ornamental beds as some herbicides can cause damage to desired ornamentals. And lastly but not the least is 5) Repeat application according to label instructions.



Photo 2: Yellow nutsedge overall plant.
Photo: Chuck Schuster, UME Ag Agent, Emeritus



Yellow nutsedge seed head.
Howard F. Schwartz, Colorado State University, Bugwood.org

Plant of the Week

By: Ginny Rosenkranz

Coreopsis grandiflora 'Sunfire' is a compact cultivar of the native tickseed coreopsis herbaceous perennial. The plants grow in a clump form, upright to 24 inches tall and 22 inches wide. It thrives in full sun and well drained soils and very drought, and it is high humidity tolerant. Although they live only 3-4 years as short-lived perennials, they make up for it by blooming from May into the autumn, especially if deadheaded, with sunny bright golden yellow flowers with rich burgundy red centers. The golden center disk flowers are surrounded by the golden yellow ray flowers that sport notched ends, and sit on top of thin, erect stems, inviting butterflies, bees, and other pollinators to visit. Plants are cold tolerant in USDA zones 4 – 9, and slowly spread by rhizomes and seeds. The deep green lower leaves are linear and the upper leaves are deeply lobed. 'Sunfire' fits in cottage and pollinator gardens, and with their compact growth habit they are also great in front of borders. Pests can include powdery mildew, leaf spot, and rust, and if grown in poorly drained soils, they can develop crown rot. They are also tolerant of both deer and rabbits.



Coreopsis grandiflora 'Sunfire' is compact cultivar of native tickseed.

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 **2710 DD** (Martinsburg) to **3624 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.

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 21)

Annapolis Naval Academy (KNAK)	3226	Baltimore, MD (KBWI)	3250
College Park (KCGS)	3239	Dulles Airport (KIAD)	3275
Ft. Belvoir, VA (KDA)	3267	Frederick (KFDK)	3198
Gaithersburg (KGAI)	3016	Greater Cumberland Reg (KCBE)	2902
Martinsburg, WV (KMRB)	2710	Millersville (MD026)	3077
Natl Arboretum/Reagan Natl (KDCA)	3608	Perry Hall (C0608)	2960
Salisbury/Ocean City (KSBY)	2989	St. Mary's City (Patuxent NRB KNHK)	3624
Susquehanna State Park (SSQM2)	3008	Westminster (KDMW)	3346

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

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 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/>

September 25, 2024 (12:30 p.m. to 3:00 p.m.)

[IPM Scouts' Diagnostic Session](#)

Location: CMREC, Ellicott City

October 9, 2024

MNLGA Retail Day

Location: Homestead Gardens, Davidsonville, MD

October 16, 2024 (formerly listed as September 0)

Cut Flower Program

Location: Central Maryland Research and Education Center, Ellicott City, 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](#))

NOTICE TO BENEFICIARIES AND PROSPECTIVE BENEFICIARIES

Name of Organization: **University of Maryland Extension**

Name of Program: **Commercial Ornamental Horticulture**

Contact Information for Program Staff: Stanton Gill, sgill@umd.edu, 410-868-9400

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United States Department of Agriculture
Director, Center for Civil Rights Enforcement
1400 Independence Avenue, SW
Washington, DC 20250-9410

Fax: (202) 690-7442
Email: program.intake@usda.gov
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Commercial Ornamental IPM Information
<http://extension.umd.edu/ipm>

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