

Commercial Horticulture

October 13, 2023

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**IPMnet**  
**Integrated Pest**  
**Management for**  
**Commercial Horticulture**  
[extension.umd.edu/ipm](http://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](mailto:sgill@umd.edu)

**Coordinator Weekly IPM Report:**

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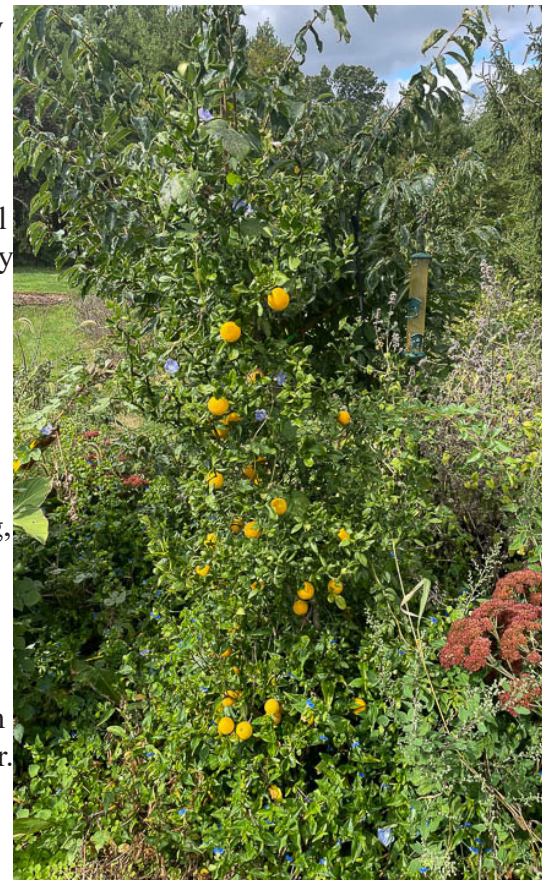
**Deer Very Active – How About a Very Deer Resistant Plant**

By: Stanton Gill

Deer activity increased tremendously with the cool front that blew in this week. Deer are crossing roads in early morning and early evening, so, watch out when driving. Deer browsing is being reported by several landscape managers this week. Newly installed pansy plants appear to be a prime target for deer browsing.

If your customers are looking for a really deer resistant plant, it would be *Poncirus trifoliata*, commonly called the hardy orange. Its very long, wicked thorns will deter any deer. I have been growing a cultivar called ‘Flying Dragon’ that is spectacular as a specimen in a landscape. The round-shaped fruit turn from green in summer to a bright yellow in October.

***Poncirus trifoliata* 'Dragon Wings'**  
**Photo: Stanton Gill, UME**



It is spectacular looking during the summer with its bright green foliage and great fragrant flower display in May and early June.

'Flying Dragon' is distinguished from the ordinary *Poncirus trifoliata*, by spines which curve strongly backward, in claw-like fashion. This interesting, ornamental growth habit is particularly evident when the plant is leafless.

### Spotted Lanternfly Reports

Sandy Whitley, Tree Care and Yard Restoration, reported finding spotted lanternfly adults on 7 trees of heaven in Silver Spring (New Hampshire Avenue and Colesville Road). There were 3 - 4 per tree. Sandy noted that she did not see egg masses.

Pat Cieslak, Former Baltimore County Master Gardener reports seeing spotted lanternflies in her garden for about 2 or 3 weeks in Baltimore County (21236 inside of the beltway just south of Perry Hall). Pat noted that they are landing on her, in her garden, on her car, and just about everywhere.

### Fall Webworms

Kevin Nickle, Scientific Plant Service, found old webs of second generation fall webworms on Japanese maples this week. The webbed nests were empty after the larvae left to find a place to pupate. There is nothing to do for control at this time. Look for them next May and June. Control materials are most effective on smaller caterpillars.



Fall webworm larvae are finding places to pupate in the soil.  
Photo: Kevin Nickle, Scientific Plant Service

## Gouty Gall on Oak

By: Stanton Gill

Donna Quante sent in photos of gouty galls on pin oak in PA. Gouty and horned galls are abnormal growths or swellings of plant tissue found on leaves, twigs, or branches. These deformities are caused by a tiny, non-stinging, wasp which produces a chemical or stimuli inducing the plant to produce large, woody twig galls. Most galls are aesthetically not pretty, but normally cause little damage to trees. However, severe infections may bring about the decline of the tree. Chemical control is seldom suggested for management. We conducted trials and only the most toxic systemic insecticides gave any level of control.



**Gouty galls found on pin oak.**

**Photo: Donna Quante**

The horned oak gall has small horns that protrude from around the circumference of the gall. It can be found on pin, scrub, blackjack, and water oaks. The gouty oak twig gall is smooth and can be found on pin, scarlet, red and black oaks.

## White Prunicola Scale and San Jose Scale

By: Stanton Gill

Male white prunicola and San Jose Scale are active this week and 3rd instar females are on plants and will be fertilized by the winged males over the next week or two. There is not much to do in October, but in a couple of weeks when temperatures are above 50 -50 °F and there are no night time freeze warnings, it will be a good time to apply an application of 3 % horticultural oil.



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**White prunicola scale on cherry laurel.**

**Photo: Suzanne Klick, UME**



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**San Jose scale on an apple.**

**Photo: Suzanne Klick, UME**

## Porcelain Berry Comments

**In response to an article in the September 29, 2023 IPM report, below are several more comments on porcelain berry:**

Katie Grant: "I saw the request for problem areas of porcelain berry in the 9/29/23 IPM newsletter. Here in Worcester Co, it is just as much of a problem as it looks to be in Rockville. I remove it from customers' landscapes frequently, but on unattended lots and highway/woodland edges it runs as rampant as the chinese wisteria. I do happen to see more of it in Berlin and Snow Hill (mid to southern county) than Ocean Pines, Ocean City and Bishopville (northern county)."

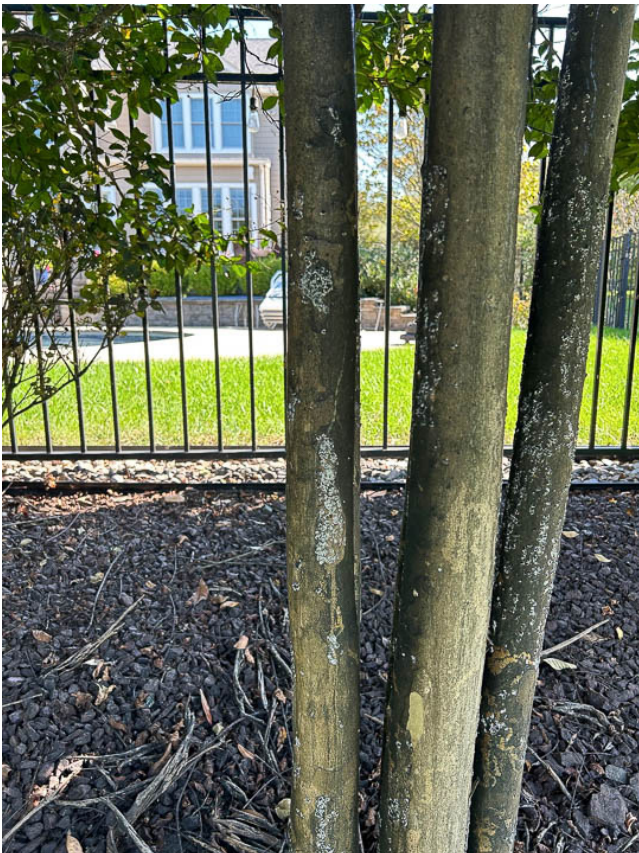
Mikaela Boley, UME-Talbot County: "You mentioned in one of your IPM alerts that you are interested in hearing more about porcelain berry; this continues to be a real problem on the Eastern Shore, and may even be worse this particular year. There are areas where it completely blankets shrubs and trees."

## Crapemyrtle Bark Scale

By: Sheena O'Donnell and Stanton Gill

We are trying to infest black raspberry and figs with crapemyrtle bark scale. The reason we are doing this is because in China, it is reported that these two species are hosts for this scale. So far, we have had crawler activity on the crape myrtles over the last month, but none have established on the figs and black raspberry plants we have intermingled with the infested crape myrtles.

Jon Armour, The Davey Tree Expert Company, observed a severe infestation of crapemyrtle bark scale in Phoenixville, PA on October 4. This is an area Northwest of Philadelphia.



**A far and close view of crapemyrtle bark scale on plants at this time of year.  
Photo: Jon Armour, The Davey Tree Expert Company**

## Acorns and Nuts Galore

By: Stanton Gill

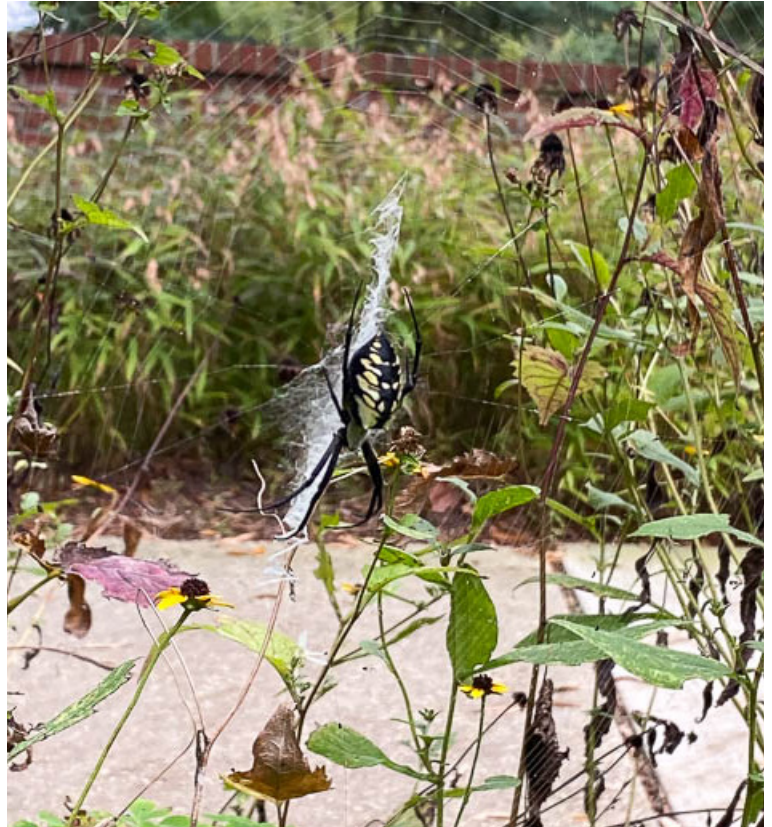
There are reports of excessive acorns and black walnut and hickory nuts dropping in 2023. Steve Clancy sent in this picture from one of his customers' landscapes. A lot of future oaks trees will be popping up in 2024. This is excellent deer food and deer hunters should have plenty of acorn- fat deer in 2023. Unfortunately, we may also have "beefier deer" to run into autos this season.



Areas in our region are seeing high numbers of acorns this year.  
Photo: Steve Clancy

## Black and Yellow Garden Argiope Spider

Meg Smolinski, UMD, saw a black and yellow garden Argiope spider in the Maryland Native Shade Garden on the UMD campus last week. These spiders lay tan egg sacs that are about an inch in diameter. The eggs hatch in late summer into fall. The recently hatched spiders that do not fall victim to predators and parasites emerge from the egg case next spring. There is only one generation per year.



There is still some activity of yellow and black argiope spiders in the area.  
Photo: Meg Smolinski, UMD

## Advanced IPM Conference for the Commercial Horticulture Industry

By: Stanton Gill

We will be holding the Advanced IPM Conference at Carroll Community College on December 8, 2023. We have a great line-up of speakers for this conference and it is always a fun conference to organize and conduct each fall. This conference is very popular and fills quickly. We have limited seating capacity, so sign up as soon as possible. This conference is being submitted for pesticide recertification credits for MD, D.C. and VA credits. Details on CEUs for other certifications will be posted when available. Registration details will be available at the end of October. Look forward to seeing you there on Dec, 8th.

## Beneficial of the Week

By: Paula Shrewsbury

### Wolf spiders running around outside and inside.

It is October and Halloween decorations are on display, including the addition of giant, fake spiders! Halloween is such a fun holiday! It seems appropriate to talk about spiders. A few weeks ago, the Beneficial was [funnel weaving spiders](#). This week, let's talk wolf spiders (Family Lycosidae) since in the last few weeks or so I have spotted numerous wolf spiders in my yard and in my house.

While many spiders build webs to trap their food, wolf spiders hunt and stalk their prey like wolves do in the mammal world. They are ground dwelling, generalist predators that commonly inhabit and hunt in lawns, leaf litter, around buildings, and similar habitats in urban and natural areas. Wolf spiders are hairy and large (1/2" – 2"), robust, and brown to black to gray in color. Like most spiders they have 2 body segments consisting of head and thorax that are fused together and referred to as a cephalothorax, and an abdomen. Their 8 long legs are covered with hairs that help detect air movement by potential prey or predators. They have fang-like mouthparts (chelicerae) and venom glands. At the tip of the abdomen there are several small silk producing appendages called spinnerets. However, wolf spiders do not use silk to make webs, but they construct burrows in the ground and use silk to line their living quarters. Wolf spider females also use silk when creating egg sacs in the spring and summer months. An interesting behavior of wolf spiders is that the females are maternal and will care for their young. A female can lay ~100 eggs that she encases in a white silk sac. She carries the egg sac under her body, protecting it, for several weeks (see image). When the eggs are ready to hatch the female tears open the silk sac and the spiderlings (baby spiders) crawl out and onto the abdomen of their mother, usually covering her entire abdomen. The spiderlings will hang on "mom" for several days where they benefit from her care. Mom provides food and protection from potential predators. The spiderlings then they drop off and become independent, foraging for their own food.



**Wolf spider along the edge of a floor in the house. Next step is to release it in the lawn or a landscape bed.**  
Photo: P.M. Shrewsbury, UMD



**A female wolf spider carrying a white egg sac under her body.**  
Photo: Mike Raupp, UMD

Wolf spiders are mainly nocturnal hunting spiders. They have excellent vision that leads to their success as hunters. They may ambush or run down their prey which includes insects such as caterpillars, earwigs, ants, beetles, grasshoppers, crickets, roaches and other spiders. Wolf spiders use their legs to seize their prey, and

their jaws to hold and crush their victim. The fang-like mouthparts are used to inject venom and enzymes that start the digestion process and make the prey nice and liquidly for easier consumption by the wolf spider. Wolf spiders hunt actively from late spring to fall. An individual wolf spider can live for 3-4 years. Wolf, and other, spiders are a fundamental part of healthy ecosystems and are major contributors to biological control in lawns, landscapes, nurseries, and natural habitats.



**Hundreds of newly hatched spiderlings cover the abdomen of their mother.**

**Photo: Mike Raupp, UMD**

As the weather starts to cool and fall is upon us, it is not unusual to see wolf spiders in homes. I see anywhere from 3-4 to a dozen or more some years in my house. One hypothesis for why we see wolf spiders indoors during the fall months is that throughout the summer there is an abundance of prey (food) in the outdoor environment for wolf spiders to consume. Populations of wolf spiders can become quite large in areas with abundant prey. However, as fall begins and environmental conditions change, the abundance of potential prey items (ex. insects) for the spiders dramatically decreases. This likely results in many wolf spiders foraging more rambunctiously and expanding their range to find food. Ultimately, [more wolf spiders make it into homes](#) and other structures. Hence, there has been an increase in wolf spider activity in homes these last few weeks. Remember that wolf spiders are not aggressive and they would prefer not to interact with humans. They are not going to harm you, but they will continue to eat insects they find outside. So, I suggest you keep a tall plastic cup handy. As you see wolf spiders inside, herd them into the cup (I use my hand but you could use a tissue or other tool). Once caught, bring the spider outside and release it in the lawn or a landscape bed where food will be more abundant for them. Everyone will be happier! Also, be sure the weather stripping on your doors is in good shape to reduce the number of spiders (and other critters) from getting in.

A fun thing to do at your next night time, outdoor event is to *head light for spider eye-shine!* Wolf spiders and their friends can be remarkably abundant in lawns and meadows. By holding a bright flashlight at just the right angle (about forehead height) and projecting the beam about 8-10 yards ahead onto the lawn, you should be able to see the reflection of spider eyes. Keep your light on the reflecting eyes and walk towards them. When you get to the eyes you should encounter an amazing spider! Definitely party fun!

For an interesting video on wolf spider's habitat and predation go to: <http://www.wikihow.com/Identify-a-Wolf-Spider> (scroll down to the YouTube video) and to learn identifying characteristics.

## **Weed of the Week**

By: Kelly Nichols, UME-Montgomery County

Perennial sowthistle, *Sonchus arvensis*, is a perennial herbaceous plant that can be found in landscapes, nurseries, and on roadsides. This plant can grow to six feet in total height. It also has a hollow ridged stem, that when broken will emit a milky colored sticky juice that has an unpleasant odor. Leaves on the stem are alternate, occur with pointed lobes, and have sharp hairs on the margins. Farther up the stem, the size of leaves decrease, and leaves are also less lobed. The bright yellow to yellow-orange flower will open early in the day, and close often before the early afternoon. These flowers can be two inches in diameter and look similar to dandelion. The bracts on the flower are green, and will present with sticky hairs. The seeds produced are tufted

and will blow easily in the wind. Seedlings often do not flower in the first year. The root system is quite diffuse; horizontal fleshy roots will spread and form new shoots. The roots are brittle and break easily, making mechanical removal extremely difficult.

Prevention is the best method of control. If a plant becomes established, prevent seed head formation. Properly timed mowing just prior to or at flowering can assist with this. Perennial sowthistle does not respond well to just glyphosate products, and in turf settings glyphosate will destroy the desired species of turf also. The active ingredients dicamba, triclopyr, and clopyralid have been shown to have effectiveness.



**Figure 1: Perennial sowthistle.**  
Photo: Steve Dewey, Utah State University, Bugwood. org



**Figure 2: The leaves clasp around the stem at the base.**  
Photo Credit: Michael Shephard, USDA Forest Service, Bugwood. org



**Figure 3: Perennial sowthistle buds and flower.**  
Photo Credit: Tom Heutte, USDA Forest Service, Bugwood. org



**Figure 4: Perennial sowthistle root.**  
Photo Credit: Steve Dewey, Utah State University, Bugwood. org

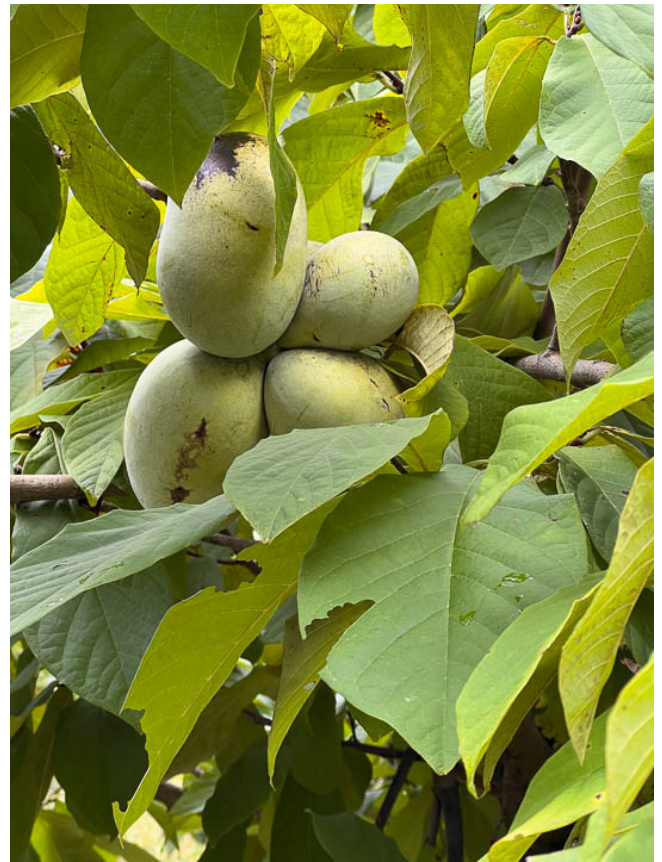
## Plant of the Week

By: Ginny Rosenkranz

*Asimina triloba*, also known as American pawpaw and sometimes poor man's banana, produces the largest fruits in America and is considered indigenous from Florida west to Texas and Nebraska, north to New York to Michigan. Plants are cold tolerant in USDA zones 5-8, and thrive in both sun or shade. In nature, it is in the shade as an understory small tree or at the edges of woods. The roots spread as suckers, creating thickets of pawpaws. Plants like moist, fertile and slightly acidic soils and are tolerant of wet soils, but not tolerant of dry soils. Pawpaws grow in an upright pyramid 15-20 feet tall and wide with large leaves that expand from 4-10 inches long to 4-6 inches wide.



Green leaves have an entire margin with pinnate veins and are attached to the stems in an alternate fashion, turning bright yellow in the autumn. The triangular flowers bloom before the foliage is on the trees in early spring, and only on the previous year's growth. Flowers start out pale green maturing into brown to purple, growing up to 2 inches wide. Because the flowers are so dark, it is thought to be pollinated by night flying beetles. The flowers also produce a slightly unpleasant smell, so day flying flies could also be the pollinators. The fruit is born in clusters, resembling the clusters of bananas. The fruit grows 1-6 inches long and 1-4 inches wide, weighing from 7 ounces up to 2 pounds. The skin of the fruit is thin, light green to light yellow (when ripe) in color. The fruit is ripe when the skin indents slightly when lightly squeezed, and does not ripen if picked too firm. Edible flesh of the fruit is golden yellow to white in color, sweet and rich in taste and has a custard like consistency. Within the fruit are the large bean-shaped, smooth seeds that are easily separated while eating, or can be spit out like watermelon seeds if eaten outdoors. The ripe fruit can stay at room temperature for 3-5 days and up to 3 weeks in a refrigerator, or can be peeled and have the pulp of the fruit frozen. There are a number of cultivars that thrive in Maryland including Allegheny® which has smaller, early ripening fruit with a very sweet flavor, Potomac® with large fruit, and rich sweet flavor, and Susquehanna® which also has large fruit with rich and sweet flavor and less seeds. The native zebra swallowtail butterfly only lays her eggs on pawpaw, but the caterpillars don't damage the mature trees. Insect pests can include Japanese beetles and ambrosia beetles, while the fungal leaf disease *Phyllosticta asiminae* or bordered leaf spot can cause black spots on both the foliage and the fruit.



***Asimina triloba* is the host plant for zebra swallowtail butterflies.  
Photos: Ginny Rosenkranz, UME**

### **Degree Days (as of October 11)**

Abingdon (C1620)	3677
Annapolis Naval Academy (KNAK)	4027
Baltimore, MD (KBWI)	4072
College Park (KCGS)	3875
Dulles Airport (KIAD)	3949
Ft. Belvoir, VA (KDA)	3758

Frederick (KFDK)	3751
Gaithersburg (KGAI)	3561
Gambrils (F2488, near Bowie)	3810
Greater Cumberland Reg (KCBE)	3335
Perry Hall (C0608)	3579
Martinsburg, WV (KMRB)	3010
Natl Arboretum/Reagan Natl (KDCA)	4434
Salisbury/Ocean City (KSBY)	4005
St. Mary's City (Patuxent NRB KNHK)	4503
Westminster (KDMW)	4056

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 **3010 DD** (Martinsburg, WV) to **4503 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.

White prunicola scale – egg hatch / crawler 3<sup>rd</sup> 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.

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

### **December 8, 2023**

Advanced IPM Conference

Location: Carroll Community College, Westminster, MD

Details coming in late October

### **December 12, 2023**

Maryland Turfgrass Council Conference and Tradeshow

Location: Turf Valley Country Club, Ellicott City, 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](mailto:umdentomology@umd.edu)

**January 10-12, 2024**

MANTS

Location: Baltimore Convention Center

**January 23 and 24, 2024**

Maryland Arborists' Association Conference

Location: Howard Community College, Columbia, MD

**January 26, 2024**

FALCAN Conference

Location: Frederick Community College, Frederick, MD

**February 8, 2024**

25th Anniversary - Manor View Farm & The Perennial Farm Education Seminar

Location: Valley Mansion, Cockeysville MD

Speakers: John Stanley (Green Industry International Business Consultant), Vinnie Simone (Planting Fields Arboretum, NY), Janet Draper (Smithsonian Gardens) & Stanton Gill (UMD Extension)

Registration information available soon.

**February 14, 2024**

Eastern Shore Pest Management Conference

Location: Wicomico Civic Center, Salisbury, MD

**Information and Registration:** <https://www.eventbrite.com/e/2024-eastern-shore-pest-management-conference-tickets-726283502507?aff=oddtcreator>

**February 15 and 16, 2024**

Chesapeake Green Horticulture Conference

Location: Maritime Institute, Linthicum Heights, MD

**February 29 and March 1, 2024**

Biological Control Conference for Greenhouses, Nurseries, and Landscapes

Location: Central Maryland Research and Education Center, Ellicott City, MD **December 12, 2023**

Maryland Turfgrass Council Conference and Tradeshow

Location: Turf Valley Country Club, Ellicott City, MD

## Commercial Ornamental IPM Information

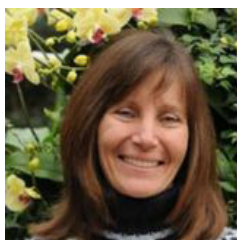
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