

Commercial Horticulture

October 11, 2024

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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

Coordinator Weekly IPM Report:

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Regular Contributors:

Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant

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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Stanton Gill

August 10, 1952 to October 5, 2024

The [obituary](#) lists the incorrect date of death as October 6th.

UPDATE on IPM Newsletter and Submissions

NOTE: We will continue to run the IPM Newsletter until the end of the season (October 25th, two more issues after today); and start it up again in the spring. Please send your images, input on what you are seeing in the field, etc. to Suzanne Klick (sklick@umd.edu) and she will share them with me (Paula Shrewsbury), Karen Rane, Dave Clement or other appropriate Extension expert.

Also, if you have insect / arthropod related issues, feel free to contact me (pshrewsbury@umd.edu) about them and I will do my best to help you out.

SLF Survey and/or Research Participants Needed

Drs. Paula Shrewsbury and Emily Russavage (University of Maryland, Department of Entomology) are seeking nursery managers to participate in a quick survey about spotted lanternfly activity, damage, and management. We appreciate your contributions to our survey! [Here](#) is a link to take the survey, which concludes **October 14th**.

We are also seeking participants for a future research project aimed at advancing sustainable spotted lanternfly management practices. This exciting project offers a unique opportunity for you to collaborate on demonstration research conducted directly on your farms/nurseries, helping to develop and showcase innovative pest management solutions.

We also encourage those who identify as BIPOC (Black, Indigenous, and People of Color), women, or beginning growers to participate. Your valuable insights and experiences are crucial to ensuring that our research is inclusive and addresses the diverse challenges faced by nurseries in our region.

By participating in this project, you will have the chance to:

- Collaborate with UMD entomologists researching biopesticides and their non-target effects.
- Provide valuable input on the project's methodology.
- Contribute to the broader goal of promoting sustainable practices in nurseries.

If you are interested in participating or would like more information, please reach out to Emily at [\[erussava@umd.edu\]](mailto:erussava@umd.edu). We look forward to the opportunity to work with you and support the success of your nursery!

Spotted Lanternflies

Continue to look for egg masses on tree trunks and branches. Sheena O'Donnell, UME, found eggs here at the research center in Ellicott City on October 7. Andrew Miller reported his first sighting of the spotted lanternfly where he maintains a property in Fairfax Station, VA.

Spotted lanternfly eggs on red maple trunk.
Photo: Sheena O'Donnell, UME



Late Season Leaf Spots

By: Karen Rane, UMD

At this time of year (late September-October), landscape plants can develop unusual leaf symptoms such as brown or yellow spots or blotches in addition to the overall color change we expect in the autumn months. There are a number of weak fungal pathogens that can attack leaves late in the growing season, but these have little impact on the overall health of the affected plant.



Late season leaf spots on redbud (left) and magnolia (right).
Photos: K. Rane, UMD

Regulatory Update:

From the Maryland State Pest Control Association

Baltimore City Passes a Ban on Gas-Powered Debris Removal Equipment

On October 7, 2024, the Baltimore City Council passed Bill 23-0367, stating "a person, individual, contractor, or subcontractor may not use gas-powered debris removal equipment in Baltimore City."

The bill specifically includes handheld leaf blowers with a vacuum function, used to displace or remove for disposal, debris, including manufactured objects, plant materials, animal materials and natural geologic materials.

This bill does not apply to pesticide application equipment.

The bill will be phased in. With this bill, the City and its contractors will no longer use gas-powered leaf blowers after Dec. 15, 2024. Private use thereafter, including for landscaping professionals, will be limited to Oct 15-Dec 15 of 2025 and the same period in 2026. Then the ban will go into full effect.

Giant Puffballs

By: Karen Rane, UMD

Connie Bowers sent in these two photos of some very large fungi found in a damp, shady spot of a landscape. Although they look quite different, these are photos of the same fungus - the giant puffball (*Calvatia gigantea*) - which is among the largest fungi found in our area. For most of the year, this fungus grows saprophytically as microscopic, threadlike mycelium in the soil, but in late summer and fall, the large, round white spore structures (sometimes up to the size of a basketball) can be found in lawns and meadows (photo on left). As the puffball matures, the color changes from white to yellowish, then brown, and the surface layer becomes cracked releasing clouds of dusty spores (photo on right). This fungus does not harm plants in the landscape.



Immature (left) and mature (right) giant puffballs.
Photos by Connie Bowers, Garden Makeover Company

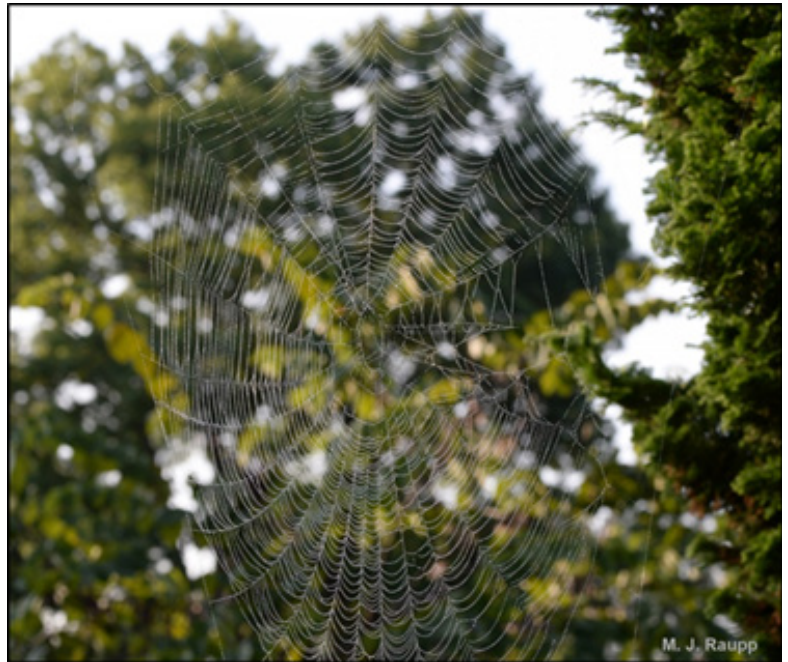
Beneficial of the Week

By: Paula Shrewsbury

It's that time of year to be on the lookout for black and yellow garden spiders and their webs.

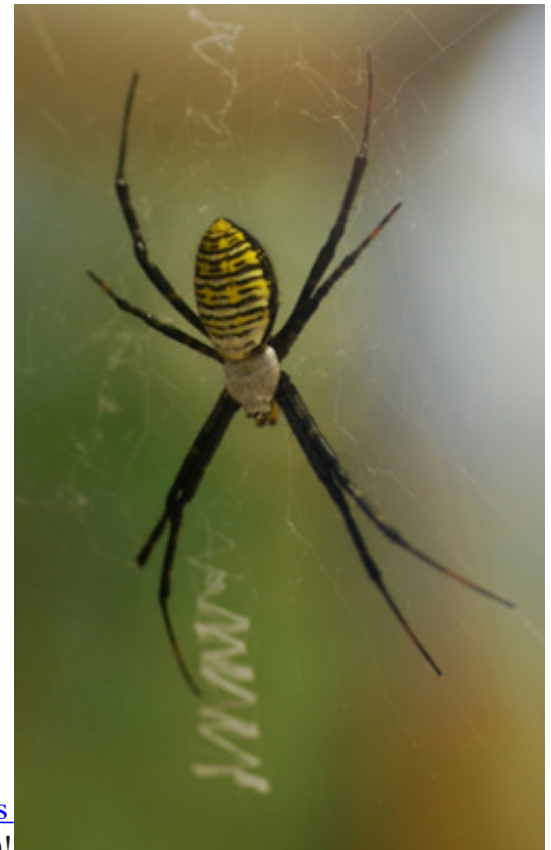
During the last few weeks, there have been several reports of black and yellow garden spiders, *Argiope aurantia* (family Araneidae, known as orb-weavers), and their webs. Both the spider and the web can be quite large and are difficult to miss. *Argiope* spiders, and their orb-weaver relatives, have spent the season consuming an abundance of prey and are now large and mature spiders. Over the next month, female black and yellow garden spiders will mate and be producing egg sacs, which is the stage in which they survive the winter. The black and yellow garden spider is common and quite noticeable, although some individuals may be unpleasantly surprised if they walk into a web unexpectedly (I know this from experience!). *Argiope* garden spiders have distinctive bright yellow and black markings on their abdomens and are mostly white on their cephalothorax (the head – thorax area). Females are larger and often more colorful than males. The body of the female ranges in size from about $\frac{3}{4}$ – $1 \frac{1}{8}$ " but she seems much larger due to her long legs. The males, however, are much smaller with a body size of about $\frac{1}{4}$ ".

Garden spiders often build their orbed (circular) webs 2 – 8' above the ground and span them between structures (ex. tree branches or a house and tree or shrub branches) where they can attach the ends of their web. Their orbed web consists of radial silk threads like the spokes of a wheel and spirals of sticky or viscid capture-threads that circle around the radial threads (see image). Each capture-thread has a core of silk supporting scores of tiny droplets of viscous glycoproteins. These glycoproteins give the web its stickiness to aid in catching prey. Female built webs are usually larger than male built webs. These webs are often found near light sources since lights attract many insects at night. High insect traffic increases the likelihood of catching prey in your web. A smart and efficient urban adaptation! Many spiders are active mainly at night, but garden spiders can be active during the day or at night. Somewhat unique to spiders that hang out on their web (vs hiding somewhere out of sight of their predators) is a zig-zag pattern of thick webbing in the center area of the web called a stabilimentum. The purpose of the stabilimentum is somewhat debated. It may function to camouflage the spider in the web from its predators, it may attract prey, or it may warn birds (or people) that a web is present by making it easier to see - all good hypotheses.



**A fine morning mist reveals the beautiful web of an orb-weaver spider.
Photo: M.J. Raupp, UMD**

The black and yellow garden spider has many interesting behaviors. When a prey item lands in the female spider's web, she begins to rhythmically flex and extend her abdomen and legs which gets the large web swaying, almost like a person swinging on a swing. This common behavior of orb weavers is referred to as web-flexing ([see this video of web-flexing](#)) and the movement is believed to cause prey to become further entangled in the web. This behavior likely has other purposes too. The spider then touches several strands of her web with her legs which seems to help her locate the prey. These spiders are known to eat prey, often insects, which can be up to twice their size. When a prey item is caught up in the web, the spider swiftly approaches it, injects it with a paralyzing venom, and then quickly spins the paralyzed prey while wrapping it in silk. The silk comes from spinneret structures at the tip of the spider's abdomen and the spider uses its legs to maneuver the silk and neatly wrap up its dinner. This all happens amazingly fast and is quite exciting to watch ([see this video of an Argiope spider with its brown marmorated stink bug prey](#))! For those of you who are fans of *Lord of the Ring*, you may recall the wicked spider that captured and wrapped Frodo as he was on his journey to return the ring. It's the same idea. The spider may devour the prey immediately following wrapping or wait and eat it later. Prey for Argiope spiders include a range of insects such as aphids, bugs, flies, bees and wasps, moths, or other flying insects. Also interesting,



**A black and yellow garden spider in her web waiting for lunch to come along. Note the stabilimentum (zig-zag pattern of thick webbing) just below the spider.
Photo: P. Shrewsbury, UMD**

the spider consumes the circular part of its web nightly and rebuilds it with new silk every morning. Wow! That seems like a lot of work. The male spider “courts” the female by approaching her web and plucking strands of silk to attract her. Once mating occurs, the male dies and is sometimes eaten by the female. You have to get nutrition where you can! Each female may lay 1-4 egg sacs which are 5/8 – 1” in diameter (about the size of a ping pong ball) which she attaches to her web. Each egg sac may produce over a thousand spiderlings which hatch in the spring. The egg sacs are often kept near the center of the female’s nest where she protects it until she dies. Females die with the first hard frost.

Be careful as you are walking between rows of nursery trees or among landscape trees and shrubs. It is a little disturbing to get the black and yellow garden spider’s web in your face, and the spider has worked pretty hard to make that web for the day!



An egg sac of the black and yellow garden spider
Egg sacs are round in shape and about the size of a ping pong ball.
Photo: Jerry Armstrong, <http://bugguide.net>

Weed of the Week

By: Chuck Schuster, UME

Japanese knotweed, *Polygonum cuspidatum*, is a native of Eastern Asia that was introduced into the United States in the late 1800’s as an ornamental. It is an herbaceous perennial that grows in an upright shrub form, reaching heights of ten feet and more. This invasive perennial is found in landscapes, abandoned areas, will tolerate full shade, high temperatures, salinity and even drought, but prefers moist sites.

Leaves will be arranged alternately on the stem, being five to six inches long and three to four inches wide, in a broad oval or egg shape with a pointed tip. Rhizomes that produce new plants help promote the thicket growing pattern of this plant. It is often relocated in contaminated soil. Stems, are hollow, jointed and when mature will resemble bamboo. Each joint will have a thin membranous sheath encircling the stem. Flowers are small and white in color, are found in clusters four to five inches in length, that are found at the junction of the leaf petiole and the stem.

Prevention is better than control. Consider the source of any fill dirt or topsoil. Do not accept it if one cannot discern if it has been evaluated. Often it spreads in this method. Control can be obtained by grubbing out new plants, remembering that any portion of the rhizome left behind will generate a new plant. Cut stem applications work well in most temperatures unless the ground is frozen. Products that can be used include 25%



Japanese knotweed flower close-up (above)
and taking over an area (bottom).
Photos: Ginny Rosenkranz, UME

glyphosate, triclopyr (Garlon) with a follow application on new seedlings. Foliar applications can be used for large areas using a 2% glyphosate or triclopyr with a surfactant. This method requires active growth and temperature above 65 °F.

Plant of the Week

By: Ginny Rosenkranz

Baccharis halimifolia, also known as groundsel or salt bush, is a native plant that thrives near the sea coast and tidal waters, but also on roadways that in the winter get covered in life saving salt to reduce accidents. Salt bush thrives in full sun and wet to moist sandy soils and can be found on roadsides, along ditches, salt marshes and disturbed areas, being very tolerant of heat, drought and salt sprays. These deciduous shrubs can grow 3-10 feet tall and wide, with a multi trunk growing in an open and airy habit and are cold tolerant in USDA zones from 5 to 10. The salt bush is dioecious, with a male plant and a female plant that flowers and sets seeds. The thick 2 inch long 1.5 inches wide grey-green leaves are elliptic in shape with a serrated margin and are dotted with resinous glands. They are attached to the stems in an alternate fashion. The narrow tubular white-green female florets are held in terminal clusters about 3 inches across and the nectar attracts many bees, butterflies and other pollinators. They bloom from August to October before maturing into seeds that are topped by silvery white feathery plume like seeds that catch the winds during the winter months. The seeds are very viable and dispersed by wind, which can make them weedy if the seeds fall into landscaped areas. Birds also enjoy the seeds in winter. Salt bush can be used in Rain gardens, retention basins, on the edges of ponds, in seaside gardens, as a hedge or trained into a single trunk specimen. There are no serious pests, although the seeds are very viable and can create aggressive seedlings.



Salt bush growing on the roadway.
Photo: Ginny Rosenkranz, UME



Salt bush flowers are in bloom August through October.
Photo: Franklin Bonner, USFS (ret.), Bugwood.org

Degree Days (as of October 9)

Annapolis Naval Academy (KNAK)	4228
Baltimore, MD (KBWI)	4185
College Park (KCGS)	4199
Dulles Airport (KIAD)	4226
Ft. Belvoir, VA (KDA)	4248
Frederick (KFDK)	4094
Gaithersburg (KGAI)	3937
Greater Cumberland Reg (KCBE)	3743
Martinsburg, WV (KMRB)	3509
Millersville (MD026)	4012
Natl Arboretum/Reagan Natl (KDCA)	4712
Perry Hall (C0608)	3840
Salisbury/Ocean City (KSBY)	3929
St. Mary's City (Patuxent NRB KNHK)	4783
Susquehanna State Park (SSQM2)	3922
Westminster (KDMW)	4325

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

Conferences

October 16, 2024

[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](#))

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

Commercial Ornamental IPM Information

<http://extension.umd.edu/ipm>

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