

Commercial Horticulture

October 25, 2024

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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 sklick@umd.edu

Coordinator Weekly IPM Report:

Stanton Gill, Extension Specialist, IPM and Entomology for Nursery, Greenhouse and Managed Landscapes

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)

Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)

Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Reversion of a Japanese Maple



Acer palmatum 'Sango-kaku', coral bark Japanese maple is showing lovely fall color. The photo shows how one of the branches is reverting to the original species form.

Photo: Ginny Rosenkranz, UME

Crown Gall on Ornamentals

By: Karen Rane and Dave Clement

Agrobacterium tumefaciens is the bacterium that causes crown gall disease. This disease is most common on plants in the rose family, but can infect hundreds of woody and herbaceous plant species. Galls are composed of undifferentiated plant tissue and initially are somewhat soft, lumpy and whitish in color, turning darker brown and woody (in woody hosts) with age. The galls are usually located at the base of the stem (crown), or roots of infected plants, but they can also form on branches of some woody hosts, such as willow, rose and euonymus. Although plants are not typically killed by this disease, infected plants often show reduced plant vigor. The pathogen can survive for many years in soil, and enters the plant through small natural openings and wounds (such as pest feeding injury, frost injury, physical damage at planting or propagation) to the roots or lower trunk.



Crown gall disease infecting euonymus.
Photo: Suzanne Klick, UME

Unfortunately, there is no treatment that can cure a plant with crown gall – the pathogen can infect systemically in some hosts. Management is focused on preventing infection. Avoid purchasing or taking cuttings from plants with crown gall symptoms. Consider planting non-host plants, such as conifers, or grasses, in soils where the disease is known to occur.

Cicada Damage

By: Karen Rane, UMD

I took these photos of old Brood X damage on my own Japanese maple. It's been a while since Brood X, and this photo is a good reminder of what older damage looks like.

Oviposition damage from periodical cicada Brood X (2021) is still visible in a line on the underside of this Japanese maple branch in 2024. Such injury could be mistaken for fungal cankers.



UPDATE on IPM Newsletter and Submissions

NOTE: This is the final edition of this newsletter for 2024. We will start up the reports again in the spring. When we start again next year, please send your images and 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. We will let you know if something changes with this process when the reports start again. 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.

Fall Insect and Spider Activity



Early morning dew can highlight the webs of funnel spiders in turf and on plants. Paula Shrewsbury, UMD, wrote a Beneficial of the Week article on these spiders in the [September 29, 2023 IPM Report](#). Photo: Ginny Rosernkranz, UME



Bob Mead, Mead Tree and Turf, found this luna moth caterpillar on an oak. It will find a place to pupate and overwinter. The caterpillar feeds on various woody plants, such as birch, black gum, sweet gum, and walnut.

Photo: Bob Mead, Mead Tree and Turf

Stanton A. Gill Horticulture Scholarship

A scholarship has been established at Montgomery College to honor and continue the memory of Stanton Gill, a renowned teacher, scientist, innovator, and mentor. If you are interested in donating to the fund, there are several ways to contribute:

Via check to: Montgomery College Foundation
Attn: Jonathan Strausberg
For: Stanton A. Gill Horticulture Scholarship
9221 Corporate Blvd. E334, Rockville, MD 20850

Please put a note on the memo line of the check indicating the donation is for the Stanton A. Gill Horticulture Scholarship.

Online: Go to www.montgomerycollege.edu/donate. Check the "Give to where the need is greatest" box and be sure to check the "In honor of someone" box. Add a note that this is a memorial gift in honor of Stanton in the Comments section.

The family thanks you for helping them to carry on Stanton's legacy.

**If you wish to send Stanton's family a card, please send it to:
Family of Stanton Gill, c/o UMD Extenison, Central MD Research and Education Center,
4240 Folly Quarter, Ellicott City, MD 21042**



Stanton Gill, in response to requests from arborists in the late 1990s, started this Landscape and Nursery IPM report. (For a few years, it was text only...and it was faxed!)

We will all miss his teaching, support, mentorship, and friendship.

Beneficial of the Week

By: Paula Shrewsbury

Multi-colored Asian lady beetles are also known as Halloween beetles.

In the spirit of Halloween, I wanted to talk about a beneficial with orange and black coloration. The first to come to mind is the **multi-colored Asian lady beetle, *Harmonia axyridis***. Both the coloration and the timing (now) that they move into homes and other structures have also earned this beetle the name “Halloween beetle”. The multi-colored Asian lady beetle is the most common lady beetle I observe in managed and natural ornamental environments. The multi-colored Asian lady beetle is native to eastern Asia and was brought to the U.S. in 1916 to control aphids in food crops, and then accidentally several times. At first, they did not establish well, but around 1988 an established population was found in a natural habitat. Since then, they have adapted very well and are now found throughout the U.S. and other countries they have been introduced or invaded.

Adults of multi-colored Asian lady beetle are highly variable in their color and spot pattern (color polymorphism). Their body color ranges from a pale orange to bright red, both with and without spots, and in the number of spots. One diagnostic feature for all multi-colored Asian lady beetles is a dark patch in the shape of an “M” (or “W” depending how you look at it) just behind the head on the pronotum (white section just behind the head). The juvenile stages or larvae are mostly black but with two lateral orange stripes along the sides of the middle segments of their abdomen, double-branched spines (scoli) run down the length of the body, and long legs. The larvae take a week or two to develop through 4 instars (immature stages) and can reach up to ~10 mm long before they transform into pupae. Within a few days the adults will emerge from the pupal skin and resume their hunt for aphids or other prey items.



UC Statewide IPM Project
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Three of many color forms of adult multi-colored Asian lady beetles. Note the diagnostic black “M” or “W” pattern (depending how you look at it) on the pronotum of the beetles.

Photo: Jack Kelly Clark, UC Statewide IPM Project



M. J. Raupp

Note the characteristic color pattern and spines of the larval stage of the multi-colored Asian lady beetle.

Photo: M.J. Raupp, UMD

Multi-colored Asian lady beetle adults and larvae are [generalist predators](#). Adults have been reported to consume more than 250 aphids each day, and the larvae may eat more than 1500 during their development. Multi-colored Asian lady beetles also will consume scales, a diversity of beetles, and caterpillars. They are

also omnivorous and feed on nectar and pollen from plants. They are highly beneficial when it comes to reducing populations of aphids. If don't spray your aphid infested plants with pesticides, these predators really can do their job well and suppress a pest population.



A pupa of the multi-colored lady beetle.
Photo: Hadel Go, BugGuide.net

Not all “good” beetles are good all the time. In the fall months as the weather cools, hundreds to thousands of multi-colored Asian lady beetle adults begin [moving indoors](#) to find a protected location to hunker down for the winter. When invading homes and structures multi-colored Asian lady beetles are referred to as a nuisance pest. In addition to their high numbers in buildings, they also produce a defensive compound that has a bad odor when disturbed which makes them a little nastier when indoors. The best method to control multi-colored Asian lady beetle as nuisance pests is to prevent them from getting in the first place. Anything that can seal openings in homes will help in their control. Vacuuming the beetles up and moving them outdoors to a protected location is also an option. Happy Halloween!

Weed of the Week

By: Chuck Schuster, UME

Common cocklebur, *Xanthium strumarium*, is a summer annual dicot weed. This annual is easy to identify as it produces a prickly oblong bur and grows from six inches to three feet in height. Unfortunately, cocklebur can be found in many settings, including livestock pastures. In these instances, it is not uncommon to see cattle or other livestock with a smattering of the sticky burs along their legs, belly, and head. No less, it is one that will often be found in nurseries and occasionally in landscapes.

Common cocklebur has a deep taproot. The first true leaves are opposite along the stem, and all leaves above this point are alternate. Leaves are triangular in shape and have stiff hairs. The leaves may be two to six inches in length, with three very prominent veins on the upper surface arising from the same point.

Common cocklebur may be mistaken for giant ragweed in early stages; however, the cotyledons of common cocklebur are much longer and more linear than those of giant ragweed.



Common cocklebur produces sticky oblong burs.
Photo: Virginia Tech Weed ID Guide

Control of common cocklebur can be obtained by using post emergent non-selective herbicides such as glyphosate. Some resistance is being found with pre emergent herbicides. In turf settings it can be controlled with 2,4-D products.

Plant of the Week

By: Ginny Rosenkranz

Quercus phellos, known as our native willow oak is a large to medium deciduous oak tree that thrives in full sun and moist, well drained, acidic soils. They are also very tolerant of wet soils and can be planted at the edges of stream or ponds or in rain gardens. Like a lot of oaks, willow oak is tolerant of poor drainage, clay soils, sandy loams and urban pollution. Willow oaks are fast-growing oaks that reaches heights of 40-75 feet tall and spreading 25-50 feet wide with a rounded crown. The green leaves are slender with a smooth, wavy or entire margin and a bristle tip at the end, growing 1 inch wide and up to 5 inches long. The leaves are placed in an alternate fashion on the gray stems, and the cool temperatures in autumn turn the foliage a soft yellow brown to dull gold. The bark when young is smooth and reddish brown, but as the trees mature the bark becomes dark gray with shallow, irregular furrows and ridges. This particular oak has branches that grow horizontally, making it a wonderful choice as a street tree, or planted as a shade tree, in parks or on golf courses. In early spring the Willow oaks yellow green male and female catkin flowers are wind pollinated to become rounded acorns with a scaly bowl-like cap that has brown and black bands and grow up to half an inch long. The acorns are on the trees from September to November and are enjoyed by ducks, songbirds, white tail deer, woodpeckers, small mammals, quail and black bears. The leaves and acorns are poisonous to horses. Willow oak is cold tolerant in USDA zones 5-9 and is also a host plant for the larva of the imperial moth, (*Eacles imperialis*), the banded hairstreak (*Satyrium calanus*), Edward's hairstreak (*Satyrium edwardsii*), gray hairstreak (*Strymon melinus*), white-m hairstreak (*Parrhasius malbum*), Horace's duskywing (*Erynnis horatius*), and Juvenal's duskywing (*Erynnis juvenalis*). Willow oaks have good resistance to many diseases and insect pests, but protentional diseases can include anthracnose, cankers, chestnut blight, leaf spots, oak wilt, powdery mildew or shoestring rot. Protentional insect pests can include borers, caterpillars, galls, lace bugs, leaf miners, nut weevils, oak skeletonizer and scale. Iron deficiency can occur if planted in soils with high pH, and trees are susceptible to wind damage.



Growth habit of willow oak.
Photo: Ginny Rosenkranz, UME



Close-up of willow oak leaves.
Photo: Ginny Rosenkranz, UME

Degree Days (as of October 23)

Annapolis Naval Academy (KNAK)	4353
Baltimore, MD (KBWI)	4259
College Park (KCGS)	4302
Dulles Airport (KIAD)	4316
Ft. Belvoir, VA (KDA)	4349
Frederick (KFDK)	4187
Gaithersburg (KGAI)	4050
Greater Cumberland Reg (KCBE)	3815
Martinsburg, WV (KMRB)	3586
Millersville (MD026)	4117
Natl Arboretum/Reagan Natl (KDCA)	4873
Perry Hall (C0608)	3934
Salisbury/Ocean City (KSBY)	4030
St. Mary's City (Patuxent NRB KNHK)	4946
Susquehanna State Park (SSQM2)	4038
Westminster (KDMW)	4453

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

December 12, 2024

2024 Cultivating Innovation in Maryland's Agriculture and Technology Conference

Location: Crowne Plaza, Annapolis, MD ([Program and registration information](#))

December 19, 2024

Advanced IPM Conference

Location: Carroll Community College, Westminster, MD

Details coming soon

Biocontrol School – In-Person Event

Penn State Extension is hosting an in-person Biocontrol School for anyone interested in learning about biological control and sustainable pest management. The event will take place on **December 5, 2024**, starting at 8:30 a.m. Eastern, at the Farm and Home Center in Lancaster, Pennsylvania.

Speakers from Penn State Extension, BioWorks, Certis, IPM Labs, and Koppert will introduce attendees to various groups of biological control agents (beneficial insects, fungi, etc.). The workshop features a great lineup of experts who will provide valuable background information and practical advice on implementing biological control measures.

For details about the Biocontrol School, including registration, agenda, continuing education credits (CEUs), and more, please visit the event page. **Registration fee:** \$85 | **Registration deadline:** November 30

For more information and to register, visit: <https://extension.psu.edu/biocontrol-school>

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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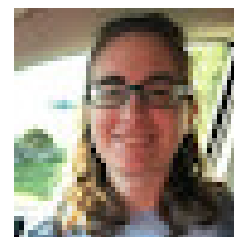
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Thank you to the Maryland Arborist Association, the Maryland Nursery, Landscape, and Greenhouse Association, Professional Grounds Management Society, FALCAN, and USDA NIFA EIP Award # 20217000635473 for their financial support in making these weekly reports possible.

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