

Commercial Horticulture

October 5, 2018

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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 [sklick@umd.edu](mailto:sklick@umd.edu)

### Coordinator Weekly IPM Report:

Stanton Gill, Extension Specialist, IPM for Nursery, Greenhouse and Managed Landscapes, [sgill@umd.edu](mailto:sgill@umd.edu). 301-596-9413 (office) or 410-868-9400 (cell)

### Regular Contributors:

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

Disease Information: Karen Rane (Plant Pathologist), David Clement (Extension Specialist), and Joe Roberts (Plant Pathologist for Turf)

Weed of the Week: Chuck Schuster (Extension Educator, Montgomery County)

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)

### Weird Weather and Its Impact

By: Stanton Gill

#### Trees flowering in the fall:

The excessive rain and unusual summer weather in 2018 is having another impact. Kevin Nickle, Pro Lawn Plus, Inc., reports finding saucer and southern magnolias coming into bloom in early October. I have had two emails reporting apple and crabapples coming into bloom in October. This weather this summer just has some plants “all confused.”



UMD-IPMnet

**Crabapples are one of the species of trees sporadically blooming this fall**

**Problems with cherry laurel:** If you are seeing major dieback with cherry laurel in the last month please let me know. [Sgill@umd.edu](mailto:Sgill@umd.edu). I suspect it is tied into root injury from the high moisture content in the soils this summer.

## Redheaded Pine Sawfly

Jeff Swope, DMW, found redheaded pine sawflies attacking deodar cedars and pines in a neighborhood in Frederick. These sawflies prefer two- and three-needle pines, but occasionally will feed on other pines as well. The larvae feed gregariously. This group feeding of larvae can defoliate whole sections of a tree very rapidly in late August through September. They overwinter as second generation pre pupa larvae.

**Control:** If possible, prune off tip growth on which they are feeding and destroy. Conserve insecticide will also give control.



The second generation of redheaded pine sawflies can cause significant damage to pines late in the season  
Photo: Jeff Swope, DMW

## Over Mulching

Jon Cholwek, Pogo Tree Experts, sent in photos of the consequences of repeated over mulching to a tree at a site in Ashton. The photos show the problems with excessive soil and mulch above the root flare.



Mulching this tree above the root flare provided optimal conditions for the rotting of this tree at the soil line  
Photos: Jon Cholwek, Pogo Tree Experts

## European Hornets

By: Stanton Gill

It is October, and the emails are flowing in reporting heavy European hornet (*Vespa crabro*) activity. They are stripping bark off lilacs and river birch this month. One nursery owner has sent two e-mails in the last week complaining that the European hornets are destroying branches on valuable large lilac plants in their nursery. European hornets are known for chewing up their food to feed it to their young, as well as chewing up paper-like materials to make their nests.

Some landscapers who have customers with apple trees and Asian and European pears are reporting a lot of fruit feeding activity from European hornets this week. The European hornet is the largest eusocial wasp native to Europe. It is also the only true hornet found in North America. It was introduced by European settlers in the 1800s. It is usually regarded as a pest by those humans who come into contact with it.



**In October 2017, European hornets were high in numbers in the area and causing significant damage to buddleia stems**

If the damage is extensive enough on ornamental plants to warrant doing something, then a pyrethroid such as bifenthrin or permethrin can be directed onto the branches of the plants being damaged. You are out of luck on the fruit feeding. Most insecticides that would work on killing the hornets have a harvest interval that is several days to weeks. Harvest ripe fruit as fast as you can. By the way, they love to feed on figs, especially if the figs start to crack open from excessive rain.

This species stings in response to being stepped on or grabbed, but generally avoids conflict. It is also defensive of its nest and can be aggressive around food sources. European hornets are largely carnivorous and hunt large insects such as beetles, wasps, large moths, dragonflies, and mantises. They also feed on fallen fruit and other sources of sugary food. Let them enjoy the fallen fruit.

The paper-like nest is made around houses, usually under soffits and roof underhangs. They overwinter in these paper nests. We get reports of people turning on their lights in the fall and winter and having the adults buzz around their house heading toward electric light sources. This activity usually results in human panic. A fly swatter works just fine or turn out the light and wait for the wasp to alight. Take appropriate action.

## Help Us Out

By: Stanton Gill

To continue serving you, we need your help. We have an electronic survey that we will put out with the next issue. Please take a moment to fill it out. We can only continue these IPM Alerts in the future if you provide us with the input. Thanks.

## Japanese Maple Scale

By: Stanton Gill

With the rapid turnover of plant material in the nursery industry over the last 5 years, I am seeing fewer scale problems that really build up to high levels. At least, this situation is true in the nurseries that are using IPM and regular monitoring. The last big build-up was 2007 through 2011 when the economy was going through the downturn period and nursery plants were remaining in the nursery a long time. This does not mean scales have gone away. It just means they are being moved through the system more rapidly and moved into the landscape. We are seeing increasing numbers of scale problems in landscapes. One of the nastiest armored scales continues to be Japanese maple scale. This scale has just finished up its second generation, and as we move into October, there are mainly settled 1st and 2nd instars. These stages are what I am finding in visiting nurseries this week.

I had an interesting email from a large nursery in Virginia. Japanese maple scale had been found infesting large blocks of boxwoods. Boxwoods really have been taking it on the chin lately with boxwood blight. Now, add this armored scale to the list and you have really pest-prone plants.

I know that boxwoods are profitable in the nursery trade and they will continue to be grown, even with their plethora of problems. If you are growing them, then monitor the stems for Japanese maple scale. On a boxwood, this scale tends to build up on the inner stems where it is rather hard to detect. The canopy is so thick it is often difficult to see the scale covers clustered on the stems. It will take a little patience as you monitor. A few years ago we evaluated several IGR materials for control of Japanese maple scale on holly. The problem we had was nursery growers shear the hollies at least twice a year making a very tight plant. It was extremely difficult to get the Talus or Distance to penetrate past the outer foliage and make contact with the scales.



Brian Kunkel, University of Delaware Extension, and I evaluated several new systemic materials applied as foliar applications and drenches on dense 6 - 8 ft hollies in a nursery for control of Japanese maple scale. Several of these materials look very promising and they may be the better way to control this scale on the dense growing boxwood. We will publish the results of this trial this winter.

## Leaf-footed Bugs



Bill Miller found a leaf-footed bug adult on his storm door this week. They overwinter as adults and will continue to be active through October. They usually do not cause significant damage to ornamental plants.  
Photo: Bill Miller



Elaine Menegon reports that these conifer seed bugs were hanging out on a noble fir tree in Harrisburg PA. Adults feed on ripening seed into early fall; they overwinter as adults.  
Photo: Elaine Menegon, Good's Tree and Lawn Care

## Ideal Conditions for Gray Leaf Spot

By: Joe Roberts, UMD

We have been getting several reports of gray leaf spot (GLS) in the past couple of weeks. Managers of perennial ryegrass are likely accustomed to seeing GLS this time of year and conditions have been ideal. However, we have also been getting reports of gray leaf spot on tall fescue stands as well. The disease is more common on perennial ryegrass, but the pathogen, *Magnaporthe oryzae* (syn. *Pyricularia grisea*), is known to infect tall fescue as well. Some managers may observe mixed stands of tall fescue and perennial ryegrass to become infected with GLS, but we have also observed more frequent reports on stands of 100% tall fescue. There are numerous grass species that can host the fungal pathogen including perennial ryegrass, tall fescue, crabgrass, and foxtail. Given the prevalence of these grass hosts in our region, along with the recent weather conditions, its not hard to understand how this pathogen has developed into a significant issue.

The disease can initially appear as chlorosis and small lesions on leaves (See Figure 1), but under ideal conditions, the pathogen can spread rapidly causing a severe decline of highly maintained turfgrass stands. Advanced infection on individual leaves of perennial ryegrass and tall fescue can include severe dieback and leaf flagging or twisting (See Figure 2). The pathogen is also a prolific spore producer and microscopic examination of infected leaves often shows numerous water-drop or balloon-shaped conidia that can spread and further re-infect (See Figure 3). Ultimately, an infection left unchecked can result in severe thinning of the turf canopy. Some even refer to advanced infections as scorched earth given the rapid dieback occurring in severely diseased swards.

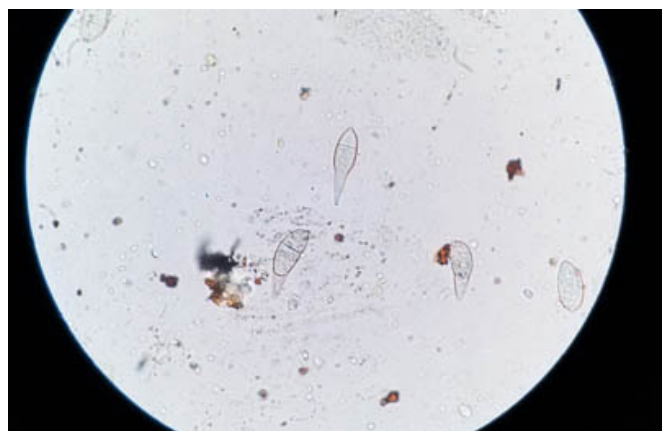
Given the saturated soils from persistent rainfall and ideal temperatures in the forecast, it is likely that this pathogen will continue to advance in the coming week or weeks. If trying to manage culturally, avoid high amounts of soluble N-fertilizer and employ any practice that reduces leaf wetness. Deployment of resistant hosts is also a useful method to prevent future outbreaks as many improved varieties offer some resistance to this pathogen. There are also multiple fungicide options available, including contacts like chlorothalonil and thiophanate-methyl in addition to acropetal penetrants like the strobilurins. Preventive applications work best, but if trying to manage curatively, scouting is critical to spot disease early. Keep in mind that curative applications often require high rates on short intervals to be successful, so be sure to apply according to label recommendations. Fungicide resistance is also a concern with this pathogen, so be sure to rotate chemistry groups and/or tank mix, as these practices help to prevent resistance development.



**Figure 1: Gray leaf spot starts with chlorosis and small leaf lesions**  
Photo: Joe Roberts, UMD



**Figure 2: Gray leaf spot can cause severe dieback**  
Photo: Joe Roberts, UMD



**Gray leaf spot produces high numbers of spores**  
Photo: Joe Roberts, UMD

## Interesting Under-used Perennial

By: Stanton Gill

I like this plant with the cool name of “Voodoo Lily”. Its Latin name is a mouthful, *Amorphophallus konjac*. Back in 1995, I was giving a presentation and the group gave a speaker gift of a voodoo lily tuber. I took it home and planted in the garden and it has slowly reproduced itself so I have a lovely stand of voodoo lilies. The stems have a great pattern on them and the umbrella-like foliage that tops the plants is both unusual and artistic in design. My plants are in central Maryland and survived the polar vortex of 4 years ago and the extreme cold of January and February of 2018 and appear to be unscathed. It appears voles do not like to feed on the large corm-like tuber in the ground.

Some people misidentify the tuber calling it a corm. The plant is in the philodendron family (Araceae) and produces a single leaf that hangs over the stem like an umbrella. It is native to warm subtropical to tropical areas of eastern Asia, including Vietnam, Japan and China south to Indonesia. It has many common names including: Devil’s tongue, dragon plant, elephant yam, konnyaku, leopard arum, snake palm and umbrella arum. The name, voodoo lily, tops my list of great common names. An interesting fact about it is that the starchy tuber-like corm is edible. It is processed into a flour or stiff jelly (which can be used as a vegan substitute for gelatin). The Japanese use konjac flour to make shirataki noodles, and the starch is used to make a popular Asian fruit jelly snack.



Voodoo lily makes an unusual choice as a cut stem

The tuber grows quickly and can get very large. I have had some that are easily 12” in diameter after growing in the ground for 5 or 6 years. The tuber shrinks away as the new leaf grows during summer. In October and November a new, larger tuber grows, enlarging after each season. The leaf petiole is fleshy and mottled pinkish-gray and olive green. I think it looks outstanding and very unusual in the landscape.

As an entomologist, I can tell you I have yet to find an insect that feeds on this plant. Even slugs and snails tend to leave it alone. In the landscape, I have never had it flower, but if you dig up the tuber in late fall and bring it inside as a cleaned and somewhat exterior-dried tuber, it will produce a flower that looks like a black version of the flower on the native plant, Jack-in-the-Pulpit. The flower looks great for about 1 day, then it starts to smell like dead meat. This is about when my wife tells me to move it outside. It is usually pollinated by flies and carrion beetles. I just move it outside and look at it through our large window.

You do not have to dig it up in winter, but you can if you want a flower that smells like dead, decaying meat. Maybe it would work around Halloween if you could get it into bloom then. If you leave it in the ground, a good freeze kills back the top. The tuber pushes up new stems in very late spring. It looks great in summer through fall. This plant is for people with an artist bent or for “plant nuts”. Also, it works for those of us who like plants not bothered by insect problems.



This native ermine moth (left) is the Ailanthus webworm moth which is often found among other pollinators at flowers; the caterpillar of the question mark butterfly (right) feeds on plants including elms, hops, nettles, and hackberry.

Photos: Nancy Woods



If you see rolled up foliage on plants, check to see if there is a caterpillar feeding within the leaf. Various species of caterpillars of sawflies and butterflies and moths roll up leaves as protection from predators

Photo: Marty Adams, Bartlett Tree Experts

### **Beneficial of the Week**

By: Paula Shrewsbury, UMD

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

To keep 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. At first, they did not establish well. 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.

Adults of are highly variable in color and spot pattern. Their body color ranges from a pale orange to bright red, both with and without spots, and if there are spots their number can vary. One diagnostic feature for all multi-colored Asian lady beetles is a dark patch in the shape of an “M” just behind the head on the pronotum. The juvenile stages or larvae are mostly black but with two lateral orange stripes on the middle segments of their abdomen. These larvae resemble tiny, short-snouted alligators with long legs. The larvae take a week or two to develop and then 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. Not the diagnostic black “M” pattern on the pronotum of the beetles.**

**Photo: Jack Kelly Clark, UC Statewide IPM Project**

Multi-colored Asian lady beetle adults are generalist predators that 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 you don’t spray your roses (or other aphid infested plants) with pesticides, these predators really can do their job well and suppress a pest population.

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 beetles begin moving indoors to hunker down for the winter. At this time, multi-colored Asian lady beetles are referred to as nuisance pests. In addition to their high numbers in buildings, they also produce a defensive compound that has a bad odor which makes them a little nastier when disturbed 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.

## **Weed of the Week**

By: Chuck Schuster, UME

New York ironweed, *Vernonia noveboracensis*, is a perennial in the aster family. Found throughout the southeastern United States, it is considered to be a concern in certain settings such as in nurseries and turf. This plant grows with a stiff stem and can reach six feet or more in height. New York ironweed produces a basal crown from which multiple stems arise each year. The leaves along the erect stem are lance-shaped and range up to ten inches in length, and one and one half inches wide. These leaves have soft white hairs on the underside, with many teeth along the margin. The flowers are on the ends of the tall erect stems and are purple in color. These flowers occur in clusters and on a peduncle or flower stalk at the ends of flowering stems. Each plant may produce thirty to fifty flowers every year. This plant has been known to persist through mild winters.

Control of New York ironweed can be obtained using post emergent herbicides containing glyphosate. Selective control in areas where desired species of plants or turf exist, the use of 2,4D or 2,4D and dicamba provides excellent control. These products have the ability to harm desired trees and shrubs through both drift and volatilization; extreme caution needs to be exercised. Consideration of temperature and humidity, as well as wind speed, are part of preventing this plant from being an issue where target plant for control is not near trees and shrubs. Products with the active ingredient of triclopyr (Garlon 3A, Gatlon 4 & Ultra) have also been found to be effective in areas that are away from the nursery trees and shrubs, such as near driveways, and in areas



not under intense management. In nursery areas, consider cultural control. While the plant is showy in the fall, the best time for control is May through July. Typically, one application of herbicide is not enough to control this weed if it has been allowed to go unmanaged in the past, as the seed bank will need to be exhausted. Since it is a perennial, prevention of flower clusters and seed is part of the cultural control methods that need to be considered.

## Plant of the Week

By: Ginny Rosenkranz, UME

*Lobelia cardinalis* (cardinal flower) is a native herbaceous perennial that can grow in full sun in the north or partial shade in Maryland, but it needs constant soil moisture to survive. Cardinal flower can grow 2-4 ½ feet tall with the flower stalks unbranched. The foliage is a dark rich green, irregularly toothed and arranged alternately along the stem. The brilliant scarlet red flower is tubular in shape with 3 lobes on the lower lip and 2 lobes on the upper lip. There can be up to 50 flowers per flower stalk over the bloom time from August to September. Cold hardy in USDA zones 2-9, cardinal flower is listed as deer and rabbit resistant due to the alkaloids in the foliage and attracts both butterflies and hummingbirds. The *L. cardinalis* plants in the photos are growing in the almost desert zone of Zion National Park. Surrounded by bare rock walls, a slight overhang and a water seep provides constant soil moisture and shade during the heat of afternoon sun, allowing cardinal flower to thrive. Although for a perennial, cardinal flowers live only 4-5 years, the sheer drama of the brilliant colored flowers against the backdrop of dark rich green foliage makes it worth replanting it into a rain garden, along a stream bed or in a freshwater bog. Cultivars include ‘Bees’ Flame’ with vermillion red flowers and ‘Queen Victoria’ with bright red flowers and plants that can grow as tall as 5 feet. Pests are occasional slugs and snails.



Cardinal flowers are a good choice for attracting butterflies and hummingbirds to the garden

Photos: Ginny Rosenkranz, UME

## Degree Days (As of October 3)

Aberdeen, MD (KAPG)	3663	Annapolis Naval Academy (KNAK)	4466
Baltimore, MD (KBWI)	4005	College Park (KCGS)	3904
Dulles Airport (KIAD)	3929	Frederick (KFDK)	3925
Ft. Belvoir, VA (KDAA)	4093	Greater Cumberland Reg (KCBE)	3662
Gaithersburg (KGAI)	3813	Martinsburg, WV (KMRB)	3647
Natl Arboretum.Reagan Natl (KDCA)	4522	Salisbury/Ocean City (KSBY)	4129
St. Mary's City (St. Inigoes, MD-KNUI)	unavailable	Westminster (KDMW)	3973

**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

## New Plants Conference at Country Springs Nursery on October 25, 2018

Plant-oriented people have to attend the October 25th NEW plants session at Country Springs Nursery in Lisbon, Maryland. You will learn of novel, new plants that can be sold to the public.

**Succulents, Temperennials, and Shrubs for Low Maintenance Landscapes:** Scott Aker, U.S. National Arboretum

**New Cultivars from the University of Connecticut:** Dr. Mark Brand, University of Connecticut

**Interesting Palms, Citrus and Aloes that are Hardy:** Dr. Ralph Denton, Pungo Palms Nursery

**Hot Tropical and Cool Edibles:** Heather McDermott, AgriStarts

**Bulbs as Companion Plants:** Brent Heath, Brent and Becky's Bulbs

## [Brochure and Registration Information](#)

### CONFERENCES

#### [New Plants for Nursery Growers](#)

October 25, 2018

Location: Country Springs Nursery, Woodbine, MD

#### **Trees Matter Symposium**

November 14, 2018

Location: Silver Spring Civic Center, Silver Spring, MD

[Registration Information](#)

#### **Turf Nutrient Management Conference**

December 6, 2018

Location: Carroll Community College, Westminster, MD

#### **December Pest Management Conference**

December 18, 2018

Location: Carroll Community College, Westminster, MD

#### **Advanced IPM PHC Short Course**

January 7-10, 2019

Location: University of Maryland, College Park, MD

Contact: Amy Yaich, Admin. Assist. II, 301-405-3911

Email: [umdentomology@umd.edu](mailto:umdentomology@umd.edu)

Information: <https://landscapeipmphc.weebly.com/>

#### **Mid-Atlantic Horticulture Short Course**

January 15-17, 2019

Location: The Founders Inn, Virginia Beach, VA

#### **FALCAN Conference**

January 18, 2019

Location: Frederick Community College, Frederick, MD

#### **MAA Winter Conference**

January 22-23, 2019

Location: Turf Valley, Ellicott City, MD

#### **Eastern Shore Pest Management Conference**

February 6, 2019

Location: Fountains Conference Center, Salisbury, MD

Contact: Ginny Rosenkranz, 410-749-6141

#### **LCA Winter Conference**

February 14, 2019

#### **Chesapeake Green Horticulture Symposium**

February 20 - 21, 2019

Location: Maritime Institute, Linthicum Heights, MD



[For more information](#)

**CONTRIBUTORS:**



Stanton Gill  
Extension Specialist  
sgill@umd.edu  
410-868-9400 (cell)



Paula Shrewsbury  
Extension Specialist  
pshrewsb@umd.edu



Karen Rane  
Plant Pathologist  
rane@umd.edu



Chuck Schuster  
Extension Educator  
cfs@umd.edu



David Clement  
Plant Pathologist  
clement@umd.edu



Andrew Ristvey  
Extension Specialist  
aristvey@umd.edu



Ginny Rosenkranz  
Extension Educator  
rosnkrnz@umd.edu



Nancy Harding  
Faculty Research Assistant

Joe Roberts, Plant Pathologist (Turf)  
robertsj@umd.edu

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