UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report
for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **October 20, 2023**

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Snowy tree cricket

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Greenbriar

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Magnolia grandiflora
(southern magnolia)

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

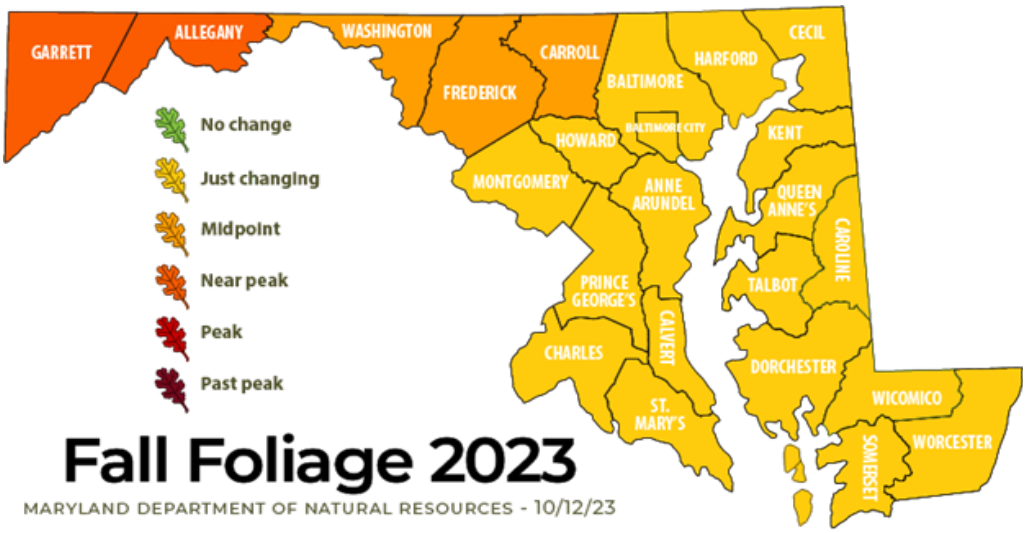
Coordinator Weekly IPM Report:
Stanton Gill, Extension Specialist, IPM and Entomology for Nursery, Greenhouse and Managed Landscapes, sgill@umd.edu. 410-868-9400 (cell)

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 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)

Leaf Blowers are Blazing

By: Stanton Gill

Well, the heavy rains last Saturday dropped lots of leaves over the weekend. Leaf blowers are being used this week to blow leaves off lawns and out of landscape beds. There will be a large amount of leaves entering the landfills over the next month. If you can convince your customers to either compost the leaves or at least mow them up and leave them in-place to add organic material to the soil, it would be a more desirable action than hauling them off to the landfills. The other option is to compost at your landscape maintenance facility or take them to a private facility that will compost the leaves.



From the Maryland Department of Agriculture Nursery Inspection Program

Under Maryland law, anyone engaged in the production, sale, distribution, or installation of nursery stock in Maryland or who advertises such services must be licensed by the Maryland Department of Agriculture. The definition of nursery stock includes any plant that survives Maryland winters, and may also include non-hardy plants or plant parts such as annuals, herbaceous perennials, vegetable plants, and bulbs.

Spotted Lanternfly Update

By: Stanton Gill and Paula Shrewsbury

We are getting reports of female and male spotted lanternflies feeding on grapes in several locations in Carroll, Howard, Baltimore, and Montgomery counties. We had one person call in to report a female laying an egg mass this week in the lower part of Montgomery County. As the weather gets cooler, which it will do over this weekend, we expect to see more females laying egg masses.

Female spotted lanternfly laying eggs.
Photo: Nancy Woods

Data out of Pennsylvania has demonstrated that grapes are susceptible to SLF and there are reports of economic damage and plant death in vineyards. If you have grapes you should be monitoring them for SLF adults and eggs and implementing some type of control measure.

White Prunicola Scale

Luke Gustafson, The Davey Tree Expert Company, is reporting that he is seeing a fair amount of white prunicola scale on cherry laurels this fall, especially on 'Otto Luyken'. Luke also pointed out in the picture taken on October 16 in Baltimore City also has damage from a past mite infestation. As we move later in the year, you can use 3% horticultural oil for control.

This cherry laurel has an infestation of white prunicola scale and some mite damage.
Photo: Luke Gustafson, The Davey Tree Expert Company

Crapemyrtle Aphid

By: Stanton Gill

With all of the excitement over crapemyrtle bark scale, crapemyrtle aphid, *Sarucallis kahawaluokalani*, has moved down on the list to the number "2" slot. It is still here and prevalent on many crape myrtles. This aphid is native to southeast Asia. In the U.S., crapemyrtle aphids are monophagous; feeding exclusively on crape myrtle and do not attack or damage other plant species. Heavy infestations may cause cosmetic damage that detracts from the visual aesthetics of crape myrtle, but feeding has not been shown to have long term effects on plant health or vigor. The amount of honeydew this aphid produces is tremendous and sooty mold is often growing on the sugary substance. Unlike other aphid species that produce winged forms as a result of environmental or reproductive stimuli, all adult crapemyrtle aphids have wings. The body is mottled with black markings.

A question that came from Sean Kramer, Hanselman Landscape in Pennsylvania, was do they overwinter as eggs. The answer is "yes", they overwinter in the egg stage. So, a horticultural oil of 3% solution can help reduce populations for next years.

Crapemyrtle aphid is not your typical run of the mill aphid. Its life cycle is interesting, to say the least. Eggs hatch in early spring, when leaf buds break. At this stage of the game, all aphids that emerge from these eggs are female. After developing into an adult, the adult female reproduces parthenogenetically and gives live birth to female nymphs. Subsequent generations of aphids also produce all female offspring through parthenogenesis during spring and summer.

Heavy sooty mold grows on honeydew produced by crapemyrtle bark aphids.
Photos: Sean Kramer, Hanselman Landscape

Here is the really wild part. When photoperiod and temperature decrease in the fall of the year, these females give birth to a generation of aphids that produce both male and female aphids. Female offspring mate with males and produce four to six eggs and place the eggs in crevices located on the bark of crape myrtle stems. Overwintering eggs will hatch the following spring.

Bagworm - Late in the Season

By: Stanton Gill

Female bagworms, *Thyridopteryx ephemeraeformis,* are all basically finished feeding for the season and overwintering as gravid females. Bob Trumbule, professional IPM Scout, sent in these pictures this week of males mating with females and a singular picture of a male bagworm. Bob found the male mating with a wingless female in mid-October on the Eastern Shore of MD. This is one of the latest in the season reports we have had of this activity. There is nothing you need to do at this time of year, but watch for hatching next spring when we report activity in the IPM Alerts.

An adult male bagworm (left) and an adult male mating with a female (right). Photos: Bob Trumbule, IPM Scout

Beneficial of the Week

By: Paula Shrewsbury

Snowy tree crickets: predators that entertain us with their music

This past week I was enjoying a fall hike at Sugarloaf Mountain (MD). The first insect that I came across was a **snowy tree cricket (a.k.a. snowy white tree cricket)**, *Oecanthus* spp. (Orthoptera: Gryllidae). Tree crickets are omnivorous which means they feed on both plant material and other insects. The snowy tree cricket feeds on the foliage of certain trees and shrubs on occasion reaching damaging levels, and they also feed on insects providing biological control services. Most noticeable, is their song that we hear in the evening during the late summer - fall season.

There are numerous species of tree crickets and overall, most have a similar appearance. The most common species seen around here is the snowy tree cricket, *Oecanthus fultoni*, which has an elongate, narrow body (about 15-18 mm [0.6-0.7”] long) and is pale green in color with orange on the head. The antennae are long (longer than the body) and thin and the legs, especially the hind legs, are long and muscular for jumping. Snowy tree crickets are found throughout the U.S., are most active July through October, have one generation per year, and are nocturnal (active at night). Common habitats for snowy tree crickets are trees, shrubs and vines, especially around houses and wood edges. Tree crickets can feed on the foliage of plants such as rhododendron and cherry laurel but usually not to an extent that warrants control. The defoliation appears as somewhat ragged chewing or having a shredded appearance. As predators, snowy tree crickets feed on a variety of insects, mostly insects within the order Hemiptera (ex. aphids, scales, psyllids).

Tree crickets have one generation per year. Eggs are laid in the fall in a line of small holes drilled in the bark of branches. Eggs hatch in the spring. As nymphs develop through the season, they undergo about 12 molts and reach adulthood around mid-summer. In the insect world, it is often the female that "chooses" whether to accept a male for mating or not, resulting in the evolution of various measures that males use to attract females. For tree crickets, males have to produce a really great song, and they also have "courtship feeding". Shortly after copulation the male produces a fluid from a gland located in the thorax between the wings. The female consumes this fluid. The fluid provides nutrition to the female and increases the likelihood of successful reproduction.

Snowy white tree crickets are pale green to almost white crickets that are predacious and hunt for their food at night.
Photo: M. Raupp, UMD

Tree crickets communicate through sound, much like cicadas. There is a lot known about the snowy tree cricket song. Only males produce the calling song, not females. Males use a stridulatory file (a row of little teeth-like structures on their wings) that they rub together to make their "chirp" (or trill) sound. The chirp is somewhat long and continuous. Females have a tympanum (for hearing) the male calls. Tree crickets have a system referred to as "sender-receiver matching". A male tree cricket produces a mating call in a specific range of frequencies unique to that species. Females of that species pick up the call of males only from their species, not other species. Click on these links to see and hear tree crickets making music: tree cricket singing, tree cricket singing2.

Tree crickets insert their eggs into the wood of small branches. Left side of branch shows oviposition scars from the outside, and right side shows a cross section of the branch exposing tree cricket eggs and scars in the wood.
Photo from https://www.omafra.gov.on.ca/IPM/english/raspberries/insects/tree-cricket.html)

During the late summer – fall season, as dusk and the darkness of night settles in, we begin to hear a chorus of "insect musicians" chirping, clicking, trilling as part of their mating rituals. It is remarkable how loud this chorus of insect music can be. The main insects that are singing, in addition to tree crickets, are annual or dog day cicadas (these are done for the season now), katydids, and field crickets. All of these, except the cicadas, are omnivores and feed on both plants (herbivores) and other insects (predators). If the plant feeding part of their life's is not too extensive, these omnivores should be left alone to continue with the insect feeding (predator) part of their life's.

Another interesting and fun fact about these crickets, is that they are sometimes referred to as "thermometer crickets" because the rate of their chirps correlates with temperature. You can actually use snowy tree cricket chirps to estimate the temperature. In the eastern U.S. to determine Fahrenheit temperature, count the number of chirps in 13 seconds and add 40 to that number and that should be the ambient temperature. You can do an internet search to learn how to recognize and distinguish the sound of snowy tree cricket chirping from other insect and animal sounds (go to: http://songsofinsects.com/biology-of-insect-song and click on the video). Some people who are into birds (birders) have learned to identify a bird just by its song. This website helps you to identify insects by the sound they make. Sounds like a great challenge and a good way to impress your friends. How many times have you said to yourself "What insect is making that sound?" I suggest on a warm summer or fall night, you get a flashlight and go outside to see and hear the nocturnal world of insects!

Weed of the Week

By: Chuck Schuster, UME-Retired

Greenbrier, common greenbrier, *Smilax rotundiflora*, is a common woody vine that can be found in many settings throughout the eastern United States. In certain situations, it becomes a problem in the landscape. The prickly woody stems can grow up into trees reaching heights of 30 or more feet. The leaves are heart-shaped, with a leathery texture to them. The waxy cuticle makes herbicide uptake difficult. These leaves can grow to five inches in length. This plant produces underground stems and or tubers with a shallow diffuse root system.

The woody stems have very tenacious thorns, making it difficult to work with the plant. In wild settings the plant forms a thicket, making a good wildlife habitat. As the plant grows it extends tendrils that will attach onto bark or branches of the plant it is climbing. The plant will have a small white /green flower with five petals which will have an April through June bloom period. The fruit is a dark blue to black berry and will hold to the plant for an extremely long time making this plant a good food source during the winter. The seeds have a several year seed viability, increasing the difficulty in eliminating this plant from places it is not desired.

Control of greenbrier will require several treatments. Use of Basal oils mixed with herbicides during dormant periods of the year. Herbicides that can be used include triclopyr and 2, 4-D work well in control of this plant. Glyphosate can be used during the growing season but will require both active growth and several applications. Better results will be obtained using off season applications.

Greenbriar growth habit
Photos: Chuck Schuster, UME

Plant of the Week

By: Ginny Rosenkranz

Magnolia grandiflora 'D.D. Blanchard' in a cultivar of our native southern magnolia. Like all of the southern magnolias, 'D.D. Blanchard' thrives in full sun to part shade and organically rich, moist, but well drained soils. Even when established, 'D.D. Blanchard' plants are not happy in extremely wet or dry soils and only thrive in USDA zones 7-9. *Magnolia* 'Bracken's Brown Beauty' is the most cold tolerant southern magnolia, able

to grow in USDA zones 5-9. ‘D.D. Blanchard’ grows with a very straight central trunk, with a compact and dense growth habit. The straight trunk allows the plants to be left alone to have branches growing from the ground upwards or to prune the bottom branches and create a tree form with a visible trunk. Because southern magnolias always drop their leaves in the spring when the new foliage emerges, having the branches down to the ground will cover up the ‘messy’ dropped leaves, and lets them decompose to return the nutrients back into the ground for the roots to take advantage. When planning a landscape with ‘D.D. Blanchard’, keep in mind that they can grow 50 feet tall and 35 feet wide, and can become an excellent shade tree. Many landscape contractors choose to plant southern magnolias for their fragrant, waxy, white cup-shaped flowers, and the flowers of ‘D.D. Blanchard’ are never a disappointment, expanding their creamy white, cup-shaped petals to 8 inches across.

Magnolias are an ancient genus and were around when the dinosaurs were walking. They were growing and flowering on the earth before bees were created, so the flowers have evolved to be pollinated by beetles. The flowers open in the morning to welcome the beetles, then close in the evening to trap the pollinating beetle. While the flowers are closed the beetle deposits pollen over the stigmas, the female part of the flower. The stigmas then close and the anthers become active and covers the beetle with pollen. In the morning the flower opens up and the beetle flies out to look for a new flower, ensuring cross pollination. What makes this southern magnolia such a great choice is the shiny, dark green leaves with the rusty brown hairy undersides and a lovely wavey margin. In the autumn, the cone-like fruiting clusters expand to 3-5 inches and release their rose reds seeds in the late fall when many native songbirds can feast on them. There are no serious disease or insect problems.

Magnolia 'D. D. Blanchard' has a dense growth habit.
Photos: Ginny Rosenkranz, UME

Degree Days (as of October 18)

Abingdon (C1620)	3712
Annapolis Naval Academy (KNAK)	4078
Baltimore, MD (KBWI)	4118
College Park (KCGS)	3913
Dulles Airport (KIAD)	3993
Ft. Belvoir, VA (KDA)	3798
Frederick (KFDK)	3785
Gaithersburg (KGAI)	3590
Gambrils (F2488, near Bowie)	3848
Greater Cumberland Reg (KCBE)	3357
Perry Hall (C0608)	3611
Martinsburg, WV (KMRB)	3024
Natl Arboretum/Reagan Natl (KDCA)	4494
Salisbury/Ocean City (KSBY)	4050
St. Mary's City (Patuxent NRB KNHK)	4572
Westminster (KDMW)	4092

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 calculatorThresholds 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 **3024 DD** (Martinsburg, WV) to **4572 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 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.

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

January 10-12, 2024
MANTS
Location: Baltimore Convention Center

January 23 and 24, 2024
Maryland Arborists' Association Conference
Location: Howard Communiy 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=oddtdtcreator

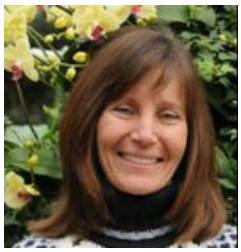
February 15 and 16, 2024
Chesapeake Green Horticulture Conference
Location: Maritime Institute, Linthicum Heights, MD

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
http://extension.umd.edu/ipm

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
Retired, Exten-
sion 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

Fereshteh Shahoveisi
Assistant Professor
fsh@umd.edu

Kelly Nichols
Extension Educator
kellyn@umd.edu

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Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.