UNIVERSITY OF MARYLAND EXTENSION

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

Commercial Horticulture **October 30, 2020**

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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:
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) and David Clement (Extension Specialist)
Weed of the Week: Chuck Schuster (Retired Extension Educator)
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)

Last of the Weekly IPM Reports for 2020

By: Stanton Gill

Our readership has increased to 4043 readers in 2020. Thanks to all of you who have sent in emails and supplied each of our University of Maryland extension authors with plenty of topics to write about in 2020. This Friday will be the last of the weekly IPM alerts for all our authors. The general team report will start up again in mid-March of 2021. It has been a fun run and we have never had so many emails sent in from the readership. These emails make our writing of applicable topics possible.

I received several emails asking if we would continue through the fall and winter. I will try to put something out every two weeks as long as you keep sending me in pictures and topics that are worth writing about in 2020 and into early 2021. I cannot expect my fellow authors to write this winter, but if they decide they have a good topic to cover you may see an article or two pop from them this winter.

Do Milkweeds Kill Spotted Lanternfly?

By: Stanton Gill

One of my students from Montgomery College sent along an article written by North Creek Nurseries in PA that she found on the web that claims that spotted lanternfly that feed on *Asclepius* species are killed. The article notes "We've begun to notice Spotted Lanternfly is attracted to milkweed for it's thick, sweet sap. They have not co-evolved with this poisonous native plant to know to avoid it. Milkweed sap contains toxic cardiac glycosides that affects heart function known to be toxic to mammals and birds."

We checked with Penn State entomologist to see if this is true. Below is the response from Emelie Swackhamer.

Hi Stanton,

I have also found adult SLF that were dead and/or nearly dead on common milkweed. (see attached picture of a dead SLF adult found on a milkweed plant)

We had a student who ran an experiment in 2019: They put SLF onto milkweed for a couple of days and then moved them back to Ailanthus (which we know will support SLF). The goal was to see if the SLF were somehow affected by feeding on milkweed. The SLF that ate from the milkweed were no more likely to die than the SLF that were not feeding on milkweed for that time period. The conclusion is that milkweed is not a good host plant for SLF but not actually toxic to them.

So, go ahead and plant milkweed! If it is not a good food for SLF and it is a good food for monarchs and the rest of the milkweed insect community, then it must be a good plant for your garden. But we don't want to raise false hopes that milkweed is actually toxic to SLF. Of course, more research is needed to further investigate the milkweed/SLF interaction.

Emelie Swackhamer
Horticulture Extension Educator, Penn State Extension

Woolly Aphids

Tony Murdock, Fine Pruning, found woolly aphids on pyracantha this week in Frederick. We have also had reports over the last week of woolly aphids in Howard County and Montgomery County. Natural predators like lacewings, lady beetles, hover flies, parasitic wasps, and birds help keep these populations low.

Predators help keep woolly aphid populations low

Raccoons Are Tearing up Turf in the Landscape This Week

By: Stanton Gill

Ron Miller, Super Lawns, sent an email in which he mentions that he is seeing raccoon damage over the last few weeks in turf, but mostly in shady areas – or at the bases of removed trees. He comments- "Not normal location for grubs – couldn't find any anyway." He suggests, in the email, that maybe they're looking/finding brood x larvae. On another day, Michelle Miller found green June beetle grubs at the same spot when she was blowing leaves.

Green June beetles were found in area near where damage from raccoons was found.
Photo: Ron/Michelle Miller, SuperLawns

Brood X is preparing to move up into the soil profile in 2021, but so far, I have only received one picture of a nymph found by a landscaper when installing a tree. The nymph was at 10-12' depth. If you are installing trees or shrubs and find nymphs in the soil profile, send me an electronic picture and note at what depth they were found. Send to Sgill@umd.edu. Last time in 2004 when Brood X emerged, we did get several pictures of nymphs in the soil profile in April and May just before emergence.

We have had samples sent into CMREC of Oriental beetle larvae that were found in a landscape bed. We are also getting reports of green June beetles in turf areas. Beetles grubs are active now which might be what raccoons are going after this fall.

The white grubs are a favorite food source of raccoons. Unfortunately, their digging also messes up the landscape flower plantings of pansies installed in the last month. Raccoons are true omnivores who eat a wide variety of foods, including nuts, seeds, fruits, eggs, insects, frogs, and crayfish. They will eat whatever is available, using their dexterous paws to pluck morsels from small hiding places.

Several of the hunters on my farms have trail cameras up for monitoring deer activity. They are all reporting very high populations of raccoons popping up on their trail cameras. I suspect with many people working from home and trashcans being filled with leftover food that this would be a good food source for raccoons in 2020. In talking with wildlife experts, they are reporting raccoons are flourishing in urban landscapes.

Two In-person Conferences

By: Stanton Gill

We will be speaking at many virtual conferences this winter but we will conducting two, limited number in-person conferences in December 2020 at Carroll Community College. One is for turfgrass nutrient management re-certification, which will be December 3. The second is the December 18 pesticide re-certification and nutrient management writing re-certification. We will submit these to the regulators for approval and will be sending out announcements to register in the next week or two. Each will be limited to two people per company. Attendees will have to follow Covid-19 guidelines.

Dead Ash Everywhere

By: Stanton Gill

With most of the news media concentrating on Covid-19 and the presidential election, the number of dead or dying ash trees have really slipped by the media. If you drive around central and western Maryland, you will see an alarming number of green and white ash that have been decimated by emerald ash borer. What concerns me is many of these dead ash trees are next to roadways and close to telephone and electric wires. When an ash tree dies, the wood is very brittle and large branches will easily fall off. This has the potential to cause major disruption and damage this winter. All we can do it hope we do not get strong wind gusts or severe snowfall this winter. My sister-in-law in Des Moines, Iowa has reported two snow incidences in the last 7 days, one was 9" and the second was 7".

Tuliptree Scale

By: Stanton Gill

Tuliptree scale usually has crawlers sometime between early September to mid-October. This year we, and entomologists in other states, are seeing something different. At CMREC, we are examining tuliptree scale and pregnant females are still giving off honeydew and still have eggs developing in their bodies. We are also seeing a lot of ant activity with the ants feeding on the honeydew. An entomologist in North Carolina sent up pictures of females full of eggs and some crawlers. This activity is going on much later into the fall compared to a normal fall. The tulipetree scale usually overwinters as settled first and second instars.

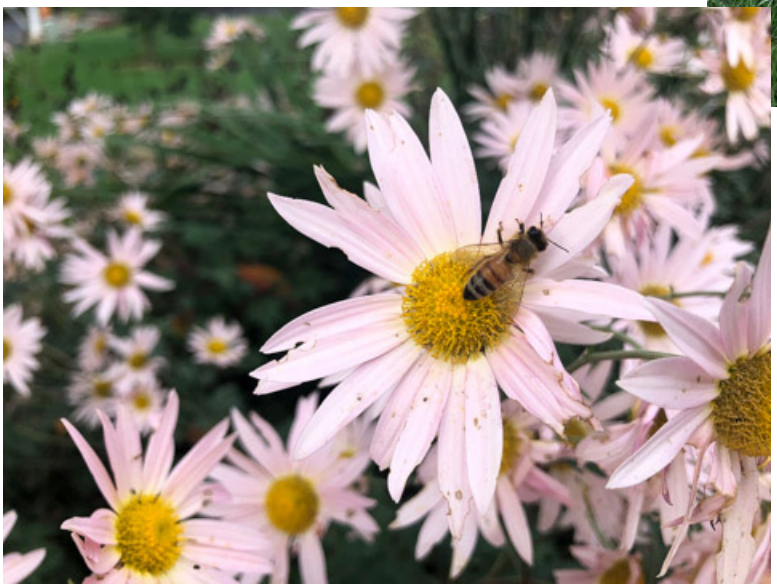
Ants are tending adult females of tuliptree scale that are still producing honeydew on a magnolia here at the research center

If you are seeing tuliptree scale producing honeydew, let me know, along with the location. Flip the female cover over and send in an electronic picture of the female to Sgill@umd.edu.

Praying Mantids

Lisa Derx, Apricity Flowers, found this Chinese praying mantid egg case this week. Matnids are finishing up their activity for the season. There might be a few females around that will still be laying eggs.

Look for Chinese praying mantid egg cases on thick stems of perennial plants or on woody stems in the landscape
Photo: Lisa Derx, Apricity Flowers



Todd Armstrong, The Davey Tree Expert Company, took photos of *Chrysanthemum*, 'Hillside Sheffield Pink' in Jarrettsville (Harford County) on October 27. He noted "As you can see, pollinators love it. And even a praying mantid." This plant provides late season color for the garden and pollen and nectar for pollinators as the growing season winds down.

Beneficial of the Week

By: Paula Shrewsbury

Fall is the time when we see big webs with big spiders

Orb-weavers are the spiders that make quite large "orb" or round shaped webs (~2' or greater in diameter) that we see commonly in the late summer / early fall. Orb-weavers are cosmopolitan in their distribution and they are in the family Araneidae, which is the 3rd largest family of spiders with over 3,500 named species worldwide. What this means is… lots of big webs!

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

Orb-weavers have spent most of the season devouring prey and are now large and mature spiders. At this time of year, these spiders will be making egg sacs loaded with hundreds of eggs, which is how they overwinter. Three of the more common orb-weavers seen in landscapes, nurseries, and natural habitats are the spotted orb-weaver, *Neoscona crucifera*, the marbled orb-weaver, *Araneus marmoreus*, and the black and yellow garden spider, *Argiope aurantia*. These three orb-weavers have many similar behaviors. Orb-weavers are somewhat large spiders (~ 1" in size).

Many members of the orb-weaver clan spin a web with radial threads like the spokes of a wheel; spirals of sticky capture-threads are placed around the radial threads (see image). Capture-threads are remarkable evolutionary products of millions of years of spider bioengineering. Each capture-thread has a core of silk supporting scores of tiny droplets of viscous glycoproteins. These glycoproteins give the web its stickiness. The sticky silk traps unsuspecting insects that blunder into the web and the vibration on the silk alerts the spider food is nearby. Orb-weaver webs are often found near night-time light sources since lights attract many insects. High insect traffic increases the likelihood of catching prey in your web. That is pretty good urban adaptation! Also interesting, many orb-weaver spiders consume the circular part of their web, with the dew that collects on it, nightly and rebuild it with new silk every morning. Wow! That seems like a lot of work.

A spotted orb-weaver spider, *Neoscona crucifera*, hanging head down in her web.
Photo: M.J. Raupp, UMD

The marbled and spotted orb weaver have a clever strategy to capture prey while limiting exposure to its own enemies. After constructing it's amazing web of death, the marbled or spotted orb weaver hides in a retreat near

the edge of its web. The retreat might be a cluster of dead leaves or a piece of loose bark. The spider runs a strand of silk called a signal thread from the web to the retreat. When a potential victim is snared by the sticky web, vibrations travel along the signal thread and alert the orb-weaver to the presence of its prey. The message is simple and clear - dinner is served. The spider swiftly scurries to its future meal and delivers a lethal paralyzing bite.

A marbled orb-weaver, *Araneus marmoreus*, immature sitting within its web.
Photo: M.J. Raupp, UMD

Black and yellow garden spiders can often be seen within their large circular web. The web contains a zig-zag pattern of thick webbing in the center area called a stabilimentum, which is somewhat unique to spiders that hang out on their web. 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 (and people) that a web is present by making it easier to see - all good hypotheses. Interestingly, 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 child on a swing. This common behavior of orb-weavers is referred to as web-flexing and is believed to cause prey to become further entangled in the web. This behavior likely has other purposes too. The black and yellow garden spider then touches several stands 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. 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! A female may lay 1-4 egg sacs, which are 5/8 – 1" in diameter and are attached to or near her web, and may produce over a thousand spiderlings each. Females die with the first hard frost. Spiderlings hatch in the spring.

An egg sac of the black and yellow garden spider, *Argiope aurantia*, is about the size of a ping pong ball
Photo: Jerry Armstrong, from http://bugguide.net

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

Once prey are caught in an orb-weaver web, the spider very swiftly approaches the prey, kills it by injecting its venom, and then quickly spins the dead prey wrapping it in silk. The silk comes from spinnerets at the end of the spider's abdomen and the spider uses its legs to maneuver the silk and neatly wrap its dinner. This all happens amazingly fast and is quite exciting to watch! The spider may devour the prey immediately following wrapping or wait and eat it later. Prey include a range of insects such as aphids, flies, bees and wasps, moths, or other flying insects.

Be careful as you are walking along paths between rows of nursery trees or among landscape trees and shrubs. It is a little disturbing to get an orb-weaver's web in your face, and the spider had to work pretty hard to make that web!

To **see a video** of a female black and yellow garden spider attacking and spinning a brown marmorated stink bug click here. You can see the silk coming out of her spinnerets at the tip of her abdomen.

To **see a video** of the female orb-weavers with their prey click here.

To **see a video** of an orb-weaver web-flexing click here.

Weed of the Week

By: Chuck Schuster

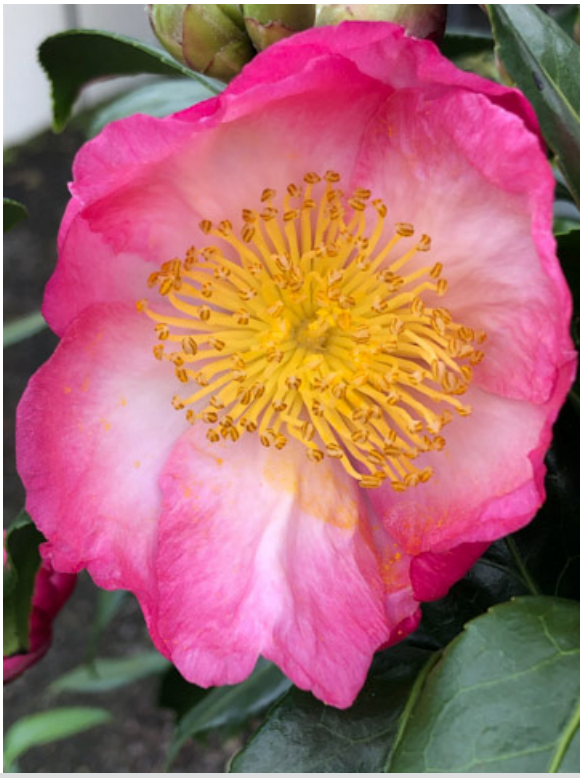
Recent rain has given a boost to many plants. Soils have been dry. While foggy mornings have been keeping plant leaves moist, the actual rainfall has been very minimal until this most recent storm. Moisture last weekend only amounted to .20 inches, while moisture from Zeta has amounted to 2 inches or more depending on location. This moisture will help plants rebound, including weeds, to come out of the slow growth dormancy stage caused by drought. While it is too late to apply pre-emergent herbicides for fall germinating weeds as most have germinated, it is still useful to gain some control of some perennial weeds, especially broadleaf weeds. Research has shown that many weeds can be effectively controlled after frost until the soil temperature reaches 32 °F. It can be noted that if temperatures drop below 28 °F degrees at night for more than 4 hours then some plants may die and a herbicide application may not be effective. Most areas have not noted these conditions as of this date. Research has shown that post emergent herbicides will provide control when the air temperature reaches at least 50 °F, with even more control being noted when temperatures reach into the 60 °F range. This region is still seeing these temperatures. Broadleaf weeds controlled with 2,4D will see efficacy. Remember as temperatures dip below 50 °F, changing 2, 4D to the ester formulation can improve efficacy. That 50 °F threshold is important, be mindful of the potential for temperature increases as this time of year still sees temperatures wander into the mid to upper 70 °F range as we saw just last weekend. The use of Burnout, Prizefighter, and Pulverize will still provide weed foliage damage, but labels recommend the use when temperatures are above 60 °F. This will not control the root system, but will eliminate the photo synthetic potential of the plant. Non selective translocated products applied to landscape weeds require that active plant growth be ongoing for effective control.

Plant of the Week

By: Ginny Rosenkranz

Camellia sasanqua 'Autumn Sunrise' is a fall blooming camellia that has a strong upright growth habit and is one of the earliest to flower in the fall. The fragrant (yes fragrant) blossoms begin as a deep raspberry red after bud break and open up to a cup-shaped flower made out of 6 petals of deep raspberry edging the outside and with pure white on the inside of the flower. The dark pink-tipped white petals expand to 3 inches and surround a small button of bright yellow gold stamens that attracts the late fall pollinators. The petals drop individually, creating a colorful mulch under the plants and removes the need to deadhead the spent flowers. The longer the blossoms stay on the plant, the whiter the inside of the cupped-shaped petals get. The plants grow very vigorously and are densely branched, growing 8-10 feet tall and only 3-4 feet wide. They thrive in rich but well drained soils and should be planted on the south west, west or northwest side of buildings, never on the east side. Most *Camellia sasanqua* can be grown in full sun, but would not object to some afternoon shade and a layer of mulch to help keep the roots cool. Plants can be used as a specimen, in a woodland or cottage garden, as a colorful hedge, and can be planted against a wall or building and trimmed as an espalier. The evergreen foliage of *Camellia sasanqua* is usually 1 ½ to 3 inches long, very glossy and dark green. Cold hardy from USDA zone 7-9, *Camellia sasanqua* 'Autumn Sunrise' is slightly resistant to deer foraging, but are still susceptible to

Exobasidium leaf gall which changes the thin leathery leaf into a puffy whitish green lump. Other pests include tea scale, mites, mealy bugs, weevils, fuller rose beetles, thrips, leaf spot, flower blight, and root rot (especially in very wet soils).



***Camellia sasanqua* 'Autumn Sunrise' is one of the earliest camellias to bloom in the fall**
Photos: Ginny Rosenkranz

Degree Days (as of October 28)

Aberdeen (KAPG)	3540
Annapolis Naval Academy (KNAK)	4073
Baltimore, MD (KBWI)	4144
Bowie, MD	4244
College Park (KCGS)	3821
Dulles Airport (KIAD)	3928
Frederick (KFDK)	3845
Ft. Belvoir, VA (KDA)	4064
Gaithersburg (KGAI)	3721
Greater Cumberland Reg (KCBE)	3304
Martinsburg, WV (KMRB)	3528
Natl Arboretum/Reagan Natl (KDCA)	4517
Salisbury/Ocean City (KSBY)	4207
St. Mary's City (Patuxent NRB KNHK)	4409
Westminster (KDMW)	4139

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

New Natural Area Management Course Designed to Expand Green Industry Professional Services

COLLEGE PARK -- The University of Maryland Extension (UME) is offering a webinar series to provide education on land care practices for small-scale natural area management. The webinar series, which will take place from 7 to 8:30 p.m. over four Thursdays beginning on October 22 through November 12, will focus on natural area management services including wildlife habitat enhancement, forestry practices, invasive plant control, tree planting, tree management, trail development, and more. This project is funded by the Harry R. Hughes Center for Agro Ecology and part of The Woods In Your Backyard partnership, composed of UME, Penn State Extension, VA Cooperative Extension, the VA Dept. of Forestry, and the Alliance for the Chesapeake Bay.

"This project began as one that focused on Maryland and Virginia but has since expanded to partners in Pennsylvania. This is a testament to the importance of incorporating forestry practices in areas of small tract woodlands and natural areas previously not maintained," said Dr. Kate Everts, director of the Harry R. Hughes Center for Agro-Ecology and the Wye Research and Education Center.

"This series was developed with green industry professionals in mind, and those looking to expand services to offer natural area enhancement, but it is also appropriate for landowners and anyone with an interest in environmentally-sustainable management practices," said Jonathan Kays, Forestry Specialist with UME.

"Whether you are a landowner looking to create recreational opportunities on your wooded property, or a landscaper looking to incorporate forestry practices into your suite of services, a wide audience can benefit from this upcoming webinar series," said Everts.

The course series includes four online classes, with a complementary resource manual and specialized checklist tool to help green industry professionals determine which enhancement practices are suitable for a given property or site depending on the landowner's goals. The remaining class topics include:
Nov. 5 - Land Care Practices for Woodland Health (continued)
Nov. 12 - Introduction to Woodland Health Assessment and Incorporating Woodland Health Practices

The cost for the series is $35 and includes the Woodland Health Practices Handbook, the Woodland Health Assessment Checklist and Management Actions, and two Woody Plant Identification Guides. For an additional $20, participants can also receive a copy of the original "Woods In Your Backyard" book (normally $29 plus shipping). **To register for the webinar series, go to https://go.umd.edu/NaturalAreasServices. For more information on UME's Woodland Stewardship Education Program, go to https://extension.umd.edu/woodland.**

Urban Tree Summit - December 2, 2020 (On-line Event)

Presented by Montgomery Parks, Montgomery County, MD and Casey Trees, Washington D.C.
Registration: https://www.eventbrite.com/e/montgomery-parks-and-casey-trees-tickets-121720670803?aff=ebdssbonlinesearch. Presentations will focus on the health and welfare of trees in our increasingly developed landscapes. Learn from some of the country's leading experts about innovative efforts to plant, protect and preserve trees in urban and suburban settings. We encourage all arborists, landscape industry and environmental/green industry professionals, engineers, designers, housing developers, and interested citizens to take advantage of this opportunity to learn new techniques and concepts on what can be done to ensure the survival of trees in our built environment

UMD Extension Solar Energy Webinars

Wednesdays, 1:00 p.m. to 2:00 p.m. until December 2. Find out more details on the UMD Extension web page.

2021 Virtual Advanced Landscape IPM PHC Short Course

This is a recertification short course for arborists, landscape managers, IPM consultants, professional gardeners, and others responsible for urban plant management.

Dates: Tuesday, Wednesday, and Thursday; January 5, 6 and 7 AND January 12, 13, and 14, 2021 (This is one course, so you can NOT register for individual days. Re-certification credits are based on attendance all six days.). Lecture times are 7:45 am – 11:00 am

Location: This is a **VIRTUAL** (online) short course offered by the Department of Entomology, University of Maryland. Attendees must have a computer with video and audio capabilities to participate.

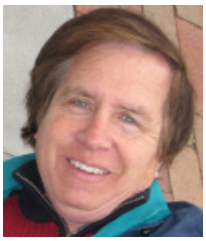
Contact: Amy Yaich, Admin. Assist. II, 301-405-3911, umdentomology@umd.edu

Registration Information: https://landscapeipmphc.weebly.com/

Late 2020 and 2021 Conferences

There will be a mix of in-person and virtual pesticide recertifications conferences over the winter. We will include information in future reports or send out as a separate email.

CONTRIBUTORS:



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