

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

Commercial Horticulture

October 19, 2018

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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 sklick@umd.edu

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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)

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The Good News With the Consistent Rain: Few Spider Mite **Problems**

By: Stanton Gill

We had one outburst of spider mite activity in late July when we had a short-lived hot, dry spell. Two-spotted spider mites took off on winged euonymus in about a week turning foliage a stippled yellow in no time flat. Other than this outbreak, spider mite activity has been extremely low which is tied in with the wet weather we suffered through the whole summer into the fall.

It is a different story in Colorado. Fellow entomologist,



Heavy webbing produced by mites on aspen Photo: Whitney Cranshaw, Colorado State University

Whitney Cranshaw, posted pictures of mite webbing on aspen in Colorado. I contacted Whitney to ask if he would share some pictures of the extensive mite injury they are seeing in Colorado this month. The mite has been identified as *Eotetranychus populi*. The mite is covering branches and leaves with thick webbing. Whitney said their weather is dry with 2/3 of the normal rainfall this fall. Well, it has been hard to find some good in this excessive rain in Maryland in 2018, but at least you can find comfort in that at least mites were not a big problem in this rain-soaked year.

Boxwood Blight

By: Stanton Gill

Steve Horn, Gardens Remembered, was concerned that boxwood infected with boxwood blight would be taken to compost facilities where it would spread the disease. In talking with pathologists, they seem to agree if the boxwood branches and leaves are truly composted (reaching 150 - 160 °F), these temperatures should kill all stages of the disease.

The <u>Virginia Boxwood Blight Task Force</u> contains extensive information on the identification and management of boxwood blight. It includes information on best management practices (BMPs), sanitizers, and fungicides.

Spiders in Landscapes

By: Stanton Gill

Thanks to all of you who have sent in spider webbing pictures in the landscape. It was very entertaining to see the many webs being spotted in the area. They are a good sign of healthy activity in the landscape and good decorations for the upcoming Halloween season.

Gray Leaf Spot

By: Geoff Rinehart

We recently received an inquiry about diseased lesions on tall fescue in Crofton. To this writing, we continue to see gray leaf spot *Magnaporthe oryzae* (syn. *Pyricularia grisea*) on tall fescue. (For more information on gray leaf spot, please see Dr. Roberts gray leaf spot update in the October 5 IPM Alert). Traditionally, gray leaf spot has been a disease that affects perennial ryegrass in our area, but with wet weather and prolonged warm temperatures we have seen it on lawn-height tall fescue this season and through this week. However, with morning frost possible in many parts of the state over the next few days this should arrest the disease.

While it is too late in the season to successfully overseed tall fescue, fertilizing with 0.9 lb. nitrogen/1000 sq. ft. twice in the fall will help to aid recovery. If you haven't fertilized yet this fall, you still have time to apply now in mid-late October and again by November 15 for homeowners and December 1 for professionals.



Morning frosts should reduce the incidence of gray leaf spot disease Photo: Adam Colgan, On The Green, Inc.

IPM Report Survey - Help Us Out

By: Stanton Gill

Thank you to those of you who have filled out the IPM report survey. If you haven't done so yet, please follow the link in today's email.

Boxwood - One More Blow

By: Stanton Gill

At the North Carolina Meetings last week, it was brought up that the European boxwood tree moth was found in Ontario, Canada in 2018. It is called (in Europe) the boxwood tree moth, but in the U.S. people are calling it boxwood moth. Its Latin name is Cydalima perspectalis, and it is in the family Crambidae. It is from Asia (Japan, China, Taiwan, Korea, and Russian Far East) and showed up in Germany in 2006. It then showed up in Switzerland and the Netherlands in 2007. It was found in Great Britain and France in 2008, and in 2012, it was introduced from Italy to Sochi with the planting stock of Buxus sempervirens. In 2013, it was found new to Denmark at several sites on the island of Sjaelland. The moth has not made a splash in the Americas, but several specimens were found in Ontario, Canada in late August of 2018.

How Does It Damage Boxwood?

The larvae feed on the leaves and shoots of *Buxus* species. The young larvae only eat the upper part of the leaf. The leaves are not destroyed completely but appear as "pealed" or shredded almost completely. These pealed leaves eventually die. Older larvae are the most damaging: they massively and completely eat the leaves, sometimes leaving a thin part at the contour and center of the leaf, however. Green ball-shaped frass (caterpillar poop) can usually be seen on host plants. Let's hope this pest does not make it to the U.S. anytime soon.

Lace Bug Resistance

By; Stanton Gill

Last week, I printed information from Dr. Richard Cowles on resistance of lace bugs to imidacloprid and Altus. It was pointed out that both of these materials generally kill insects by ingestation and not contact. The paper on the petri dish test is not a complete test for resistance. Richard Cowles is working on an ingestation trial to see if resistance is truly being seen.

Is Your Customer Happy With This?

By: Stanton Gill

A landscaper taking care of a customer's fruit trees this season reported that they have turned out to be quite ugly. The fruit is one of the disease resistant varieties resistant to powdery mildew, apple scab, cedar apple rust, and fire blight. The fruit is not resistant to late season diseases that show up when we have constant rain incidences. The diseases are fly speck and sooty blotch. There was also distorted, blotchy fruit from stink bug feeding in mid-summer. Insect damage aside, these fly speck and sooty blotch diseases do not impact the flesh itself, but they do make for one UGLY looking fruit. Needless to say, the customer was not happy with the results of fungicide sprays this season. With the record rain incidences and quantity in 2018, it is not uprising to see some bad looking fruit. Tell your customers to not give up, but do consider growing fruit that is not as disease and insect prone. They may need to reconsider and not grow apples, peaches, and traditional tree fruit in our area unless they are willing to suffer through the barrage of disease and insect problems. On the good side, cider makers tell me distorted fruit works just fine for making their ciders. Pie makers can still use Fly speck and sooty blotch can make distorted fruit.



apples very unappealing, but not inedible

Deer Are Hyperactive This Week

By; Stanton Gill

It is rutting season and the deer are running everywhere. Watch out when driving in the evening because they are running into roadways. Insurance agents tell me the Washington-Baltimore-Annapolis-Frederick area has some of the highest incidences of car/deer accidents.

Dying Cherry Laurel

By: Stanton Gill

A lot of pictures poured in about the cherry laurel dying this season. The high moisture soils are taking a toll on the root system of this species of plants in landscapes that have poor internal soil drainage. Hopefully, the soil will get a chance to finally dry out in the next couple of weeks.

More Fall Blooms

The reports of out of sync flowering continue this fall. Kimberly Marsho reported that two of her five serviceberries have been blooming for the past few weeks in Alexandria. Kevin Nickle, ProLawn Plus, Inc., found magnolias in bloom in central Maryland. Ginny Rosenkranz, UME, is reporting *Cercis canadensis* 'Rising Sun' is in bloom in Salisbury.



Common blue violets are blooming today in the turf here at the research center in Ellicott City

Yellow Patch in Zoysia Grass

Bobby Hudler, MRW Lawns, Inc. found yellow patch (caused by *Rhizoctonia cerealis*) infecting zoysia grass in Southern Maryland last week. Common hosts are bentgrasses, bluegrasses, and ryegrasses, but the disease has been reported on bermudagrasses and *Zoysia* species. We have had optimal conditions for yellow patch infection which are extended periods of overcast, rainy, cool weather, poorly drained soil or thatch, and poor air circulation.

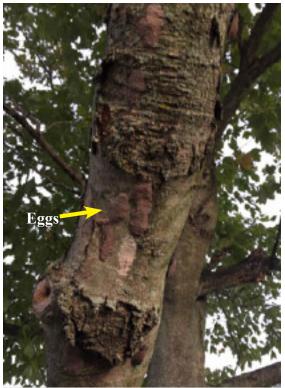


Yellow patch is infecting zoysia grass in Southern Maryland Photo: Bobby Hudler, MRW Lawns, Inc.

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Spotted Lanternfly in Pennsylvania

Continue to be on the lookout for spotted lanternfly. We have been receving reports of activity in Pennsylvania. Elaine Menegon and Jeff Durham with Good's Tree and Lawn Care are finding adults and eggs in Exton, PA. If you think you see them in Maryland, send photos to DontBug.MD@maryland.gov or call MDA at 410-841-5920.



A spotted lanternfly female was laying eggs on a maple in PA Photo: Elaine Menegon, Good's Tree and Lawn Care



A spotted lanternfly adult found in PA Photo: Jeff Durham, Good's Tree and Lawn Care

Beneficial of the Week

By: Paula Shrewsbury, UMD

A lot of soft scales results in a lot of predatory caterpillars (Laetilia coccidivora).

I was up at Morris Arboretum in PA doing some IPM training this week. They had a tulip tree that had an infestation of tulip tree scale. Tulip tree scale is a soft scale (Family Coccidae) that differs from most soft scales in that the crawlers are active in the fall (now). The class was looking at infested branches under the microscope when one of the arborists noted a caterpillar hunkered down underneath one of the adult female scale bodies. The caterpillar was just finishing up a meal of scale eggs and crawlers. The arborist had found a predatory caterpillar. How exciting! In general, caterpillars feed on plants. However, some species (less than 1% of caterpillars) are predators of other insects.

This seems to be an unusually "good" year for soft scales with lots of complaints about outbreaks. Most species of soft scale have crawlers that are active in the late spring/early summer months. However, there are two species of soft scale we commonly see on ornamental trees with crawlers active in late summer/early fall. They are tulip tree scale which feeds on tulip tree and magnolia, and magnolia scale which feeds only on magnolia. When we have outbreaks of pests, we often see natural enemy populations increase in response to the abundance of food. Fortunately, it is relatively common to find this predactious caterpillar feeding on and killing

soft scales. This predacious caterpillar is the larvae of a snout moth (Family Pyralidae) Laetilia coccidivora. It is found in southern states and northward up into Maryland and Pennsylvania. The larvae are predacious on Coccidae species such as tulip tree scale, wax scale, pine tortoise scale, and other soft scales. They feed on the eggs and young of soft scales. So you can find Laetilia in the spring/ early summer feeding on many soft scale species when they are laying eggs and there is an abundance of crawlers and early instars. They are also active in late summer/ early fall when they feed on the young stages of tulip tree and magnolia soft scale. These predacious caterpillars forage on the branches of plants with soft scale and produce webbing that appears to "coat" the branch while encompassing the scales (see image). The branches have a Photo: P.M. Shrewsbury, UMD dusty, messy appearance to them. When you look closely you can see the webbing. If you tease the webbing apart, you may get lucky and find the predacious caterpillar. This caterpillar has been recorded to provide good levels of biological control and suppress soft scale populations. When you are monitoring scale activity on your trees and shrubs, be sure to look closely for signs of this voracious caterpillar feasting on the scales. If Laetilia is present, you may not need to apply any control measures; if you do, be sure to use a product that does NOT harm caterpillars.

Also of interest is that some soft scales produce a chemical for defense called carminic acid. This chemical deters many predators from feeding on soft scale. Laetilia, however, is not affected or deterred by carminic acid and

Magnolia branch with tulip tree scale (see reddish "bump") covered in silk produced by the predatory caterpillar, Laetilia coccidivora.



Close up of the predacious caterpillar, Laetilia coccidivora, that was under the silk feeding on soft

Photo: Image by P.M. Shrewsbury, UMD

they just eat away. Moreover, this caterpillar sequesters and uses carminic acid that it acquires from its prey, as a defense against its own predators - very cool!

Plant of the Week

By: Ginny Rosenkranz, UME

Sassafras albidum, sassafras tree, is a native that prefers to grow in full sun to part shade in moist loamy acidic soils. The trees are often found along wood margins like many understory plants. They have a strong tap root which makes them difficult to transplant from the wild and do much better if container grown. Like a lot of native trees and shrubs, sassafras can spread by roots and develop into colonies. The bright green leaves are unique with their shapes, either an entire leaf margin, a mitten shape with thumb and a 3-lobed mitten shape. The underside of the leaves are white, as stated in the specific epithet, albidum. In the fall the leaves change to many vibrant shades of yellow, orange, scarlet, and purple. The trees are also dioecious, with male and female flowers on separate trees whch grow 30 to 60 feet tall and 25-40 feet wide. Hardy from USDA zones 4-9,



Sassafras has three different leaf shapes Photo: Ginny Rosenkranz, UME

sassafras trees are said to be tolerant to deer, drought, and heavy or sandy soils. The early blooming yellow flowers are also doecious with a mild fragrance and develop before the leaves emerge or just as they are emerging. The clusters of flowers are followed by dark blue berries held on scarlet fruit stalks or pedicel. The native birds feast on the ripe berries. Although the berries are not edible for humans, the bark has been used to make sassafras tea, the root oil to make root beer, and the stem pith to make file powder to make a thickening agent for gumbo. Although there are no serious pests, the occasional pests include cankers, leaf spots, wilt, root rot, mildew, Japanese beetles, promethean moth, sassafras weevil, and scale. If the plants are grown in alkaline soils, the leaves exhibit iron chlorosis, turning yellow with green veins. Sassafras trees are excellent for natural and woodland plantings and as a lawn specimen.

Degree Days (As of October 17)

Aberdeen, MD (KAPG)	3865	Annapolis Naval Academy (KNAK)	4760
Baltimore, MD (KBWI)	4234	College Park (KCGS)	4128
Dulles Airport (KIAD)	4151	Frederick (KFDK)	4150
Ft. Belvoir, VA (KDAA)	4328	Greater Cumberland Reg (KCBE)	3868
Gaithersburg (KGAI)	4031	Martinsburg, WV (KMRB)	3853
Natl Arboretum.Reagan Natl (KDCA)	4792	Salisbury/Ocean City (KSBY)	4383
St. Mary's City (St. Inigoes, MD-KNUI)	unavailable	Westminster (KDMW)	4200

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

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: <u>umdentomology@umd.edu</u>

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

Manor View & The Perennial Farm Education Seminar

February 22, 2019

Location: Sheppard Pratt Conference Center, Towson

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

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