

Commercial Horticulture **September 28, 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

Coordinator Weekly IPM Report:

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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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Aquatic Insects in Ornamental Ponds

By: Stanton Gill

Kelly Billing sent in an interesting aquatic insect this week. It was in her customer's pond on many surfaces and clogging up the filter system. It was a pupal stage of a black fly that has an aquatic larval stage. Over 2,200 species of black flies have been formally named. We cannot identify the species from the pupa.

With all of the rain this summer, it has been perfect weather for high survival of black fly larvae in ornamental ponds. If you find these insects in your customers' ponds, you can try using methoprene which is an insect growth regulator. An insect growth regulator mimics the natural juvenile hormone. Juvenile hormones must be absent for a pupa to molt to an adult, so methoprene-treated larvae will be unable to successfully change from pupae to adults. It is labeled for use in aquatic ponds. Some brand names include Strike and Altosid.



Black fly larvae were caught in a pond filter system
 Photos: Kelly Billing

Ambrosia Beetles Do Love Alcohol

By: Stanton Gill

Michael Skvarla, Director of Insect Identification Lab, Penn State University, passed along a picture of an oak wine barrel in a commercial winery operation in Pennsylvania that had wood frass being emitted from the barrels. Ambrosia beetles are attracted to the ethyl alcohol in the wine. Trees emit alcohol in wet conditions. This situation is one of the first times we have seen them attacking wine barrels. Chris Ranger, USDA, is guessing that they are likely the ambrosia beetle, *Xyleborinus saxesensii*. This borer has the common name of fruit-tree pinhole borer or keyhole ambrosia beetle. In the past, we have seen this ambrosia beetle attacking apple trees in Maryland. If any of you operate wineries, let me know at sgill@umd.edu if you see this sort of activity in your oak wine cast.



Ambrosia beetles are infesting these wine casts
Photo: Bill Skvarla

What Happened to Brown Marmorated Stink Bugs?

By: Stanton Gill

Remember 7 to 8 years ago when brown marmorated stink bug was on everyone's hate list? They were everywhere in gardens, houses, garages, and commercial buildings. Now they show up with a few here and few there. Actually, BMSB moved on across the United States and into the Mid-west and South East. The BMSB populations collapsed for many reasons here in Maryland including weather impact and a whole lot of predators and parasites developing a taste for BMSB. In the first couple of years, native enemies were not well adapted to BMSB and, as a result, they were not effective in keeping BMSB from damaging crops. This situation has changed with predators and parasites adapting to feeding this bug species.

In [last week's report](#), Paula Shrewsbury discussed the evaluation of *Trissolcus japonicus* and the finds of this egg parasitoid in areas before it has been released. This week, there was a report that *T. japonicus* was found in Michigan.



Mid instar brown marmorated stink bug nymph on coleus foliage

Another Caterpillar in Fall

In the fall, fairly small black caterpillars with short setae and yellow striping are often spotted crawling on our building and along the foundation. This morning, one was on a goldenrod leaf. This caterpillar is one of the haploa moth caterpillars. They are often found feeding on plants in the borage and sunflower families. It is a moth species that overwinters in the larval stage. Look for caterpillar activity again next spring before they pupate and become adults. There is only one generation per year. No control is necessary.



Haploa moth caterpillars overwinter and mature the following spring or summer

Urban Nutrient Management Regulation Changes

By: Chuck Schuster

Recent Maryland regulation changes to the Urban Nutrient Management Regulations go into effect in October. These changes provide an opportunity to potentially apply more organic material to turf for maintenance than previously. Under the original regulation, organic materials were limited based upon the P_2O_5 level, with no more than .25 pounds of phosphate per 1,000 ft² per application and no more than .5 pounds of phosphate per 1,000 ft² per year. Even with a soil test indicating you had a greater need, the additional material needed to be synthetic or commercial fertilizer.

Under the new regulation, the use of organic material as a topdress is limited by the soil test P-FIV (Phosphate Fertility Index Value) range. You can refer to the Urban Nutrient Management manual (<https://mda.maryland.gov/SiteAssets/Pages/fertilizer/MDAProLawnCareManual6.24.13.pdf>) page 70 to compare your soil test results to determine the P-FIV rating (low, moderate, optimum or excessive). If your P-FIV are in the optimum or excessive category, one is still restricted and cannot apply any organic materials to the turf. If it is in the low or moderate category, you are allowed as shown on the chart page 65 of the same manual or in TT-115 (<https://mda.maryland.gov/SiteAssets/Pages/fertilizer/TT115.pdf>). If the soil test shows that the soil is in the low range, up to 2 pounds of phosphate per 1,000 ft² can be applied, and if in the moderate range up to 1 pound of phosphate can be applied per 1,000 ft². This still requires two things, 1) a soil test, and 2) a compost analysis. One needs to know the amount of phosphate in the compost, and then what the soils needs. Caution needs to be exercised to make sure one does not exceed the allowable amount of nitrogen allowed per application (.9 pounds per 1,000 ft²) or the maximum allowable per year based upon species.

An example of this might be as follows. If you have a soil with a low P-FIV, you are allowed to apply up to 2 pounds of phosphate per 1,000 ft² to residential turf. If the compost contains .36% phosphate (.36% is less than one percent), (so to use in the equation below it becomes .0036) one can determine that the amount allowed to be used as follows.

2/.0036.

2= the phosphate (P_2O_5) need per 1,000 ft²

.0036 is the available phosphate in the compost material as determined by compost analysis.

2/.0036= 550. 550 pounds of compost can be applied per 1,000 ft² as a topdress. This amount will be rather heavy, and would amount to almost 1.5 inches based upon dry weight. That would be too much, but one might use half that amount and drag after aeration.

On the nitrogen side, if one applies 550 pounds of this compost they will apply 8.8 pounds of total nitrogen (total nitrogen is 1.6%, $0.016 \times 550 = 8.8$ pounds of nitrogen per 1000 ft²). This amount is much too high. So while this regulation does provide an opportunity to apply more organic matter, one needs to be aware of the total amount of N allowed per year which is by species, and the total amount of N allowed per application which is .9 pounds N per 1,000 ft².

Another change that will occur next week allows turf applicators to apply water insoluble nitrogen products at a rate of .5 pounds per 1,000 ft² between November 15 and December 1 each year. The previous regulation required the use of only water soluble N during this period.

This example is based upon one product that I looked up. If you have any questions please do not hesitate to contact Chuck Schuster (cfs@umd.edu or 301-590-2807) for assistance.

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

Succulents, Temperennials, and Shrubs for Low Maintenance Landscapes: Scott Aker, U.S. National Arboretum
Consumers want plants that do provide color and texture all season long and withstand weeks of drought bracketed by weeks of flooding. See some of the newest succulents' outdoor containers that extend the range of plants that thrive with little or no watering on sunny decks and patios, learn about tender plants that thrive in heat and humidity and fill space in beds quickly, and find out about the best new shrubs to provide seasonal interest and create a framework for everything else in mixed plantings. Scott Aker will share some of his favorites that could be profitable new plants for you to consider.

New Cultivars from the University of Connecticut: Dr. Mark Brand, University of Connecticut
The University of Connecticut has a long history of horticultural plant breeding and cultivar introduction. Recent plant improvement efforts have focused on shrubs with an emphasis on development of dwarf and sterile cultivars. Breeding of dwarf buddleia, sterile Japanese barberry, aronia, cold hardy rhododendons, and shrub *Prunus* will be explored.

Interesting Palms, Citrus and Aloes that are Hardy: Dr. Ralph Denton, Pungo Palms Nursery
Pungo Palms is a niche nursery specializing in plants that will give an owner a unique subtropical landscape. We started growing palms as a hobby and decided to open our nursery to the public 14 years ago. The nursery plants can be divided into the following categories: Cold hardy citrus, Cold hardy palms, desert plants, and other exotics. You can learn of potential new hardy plants that could expand your market

Hot Tropical and Cool Edibles: Heather McDermott, AgriStarts
Tropicals are hot in the industry! From making mixed containers pop on a customer's deck or patio, tropicals are always a good bet. Edibles are more prominent than ever with new varieties made available to the public and others being 'discovered' in other countries to bring to the US Market. Learn about a few of the varieties in the trade!

Bulbs as Companion Plants: Brent Heath, Brent and Becky's Bulbs
Whether you are planning to plant bulbs in a fresh, newly prepared empty garden, or whether you are adding them to an already existing one, this seminar will have the answers for you! With exquisite slides illustrating the seminar, you will be introduced to the best of the best...the right bulbs for the right spots. You'll learn how to combine bulbs, perennials, annuals, ground covers and flowering shrubs that will create just the feeling you want to generate for four seasons in your garden. After seeing and experiencing this seminar, you'll leave with information and inspiration to produce a garden that you, your neighbors and friends will enjoy all year.

[Brochure and Registration Information](#)

Beneficial of the Week

By: Paula Shrewsbury, UMD

Some species of thrips are predators

When we hear of thrips (Thysanoptera), we often think of insects that damage plants. Fortunately, not all thrips are bad thrips. In addition to plant feeding or phytophagous thrips, there are also several species of predaceous thrips. Unfortunately, predaceous thrips look a lot like plant feeding thrips, especially in their size (both very small) and shape. Thrips are small (<1/8", 2-3 mm in length), elongate insects. Adult thrips have wings that are thin with long fringes of hair on the wing margins, while immature thrips look similar but lack developed wings. Thrips have multiple generations per year.

Predatory thrips, both adults and immatures, eat other plant feeding thrips, spider mites, lace bugs, whiteflies, scales, and eggs of various insects. They forage or hunt on the foliage, buds, and flowers of many plants. Some predatory thrips supplement their diet of prey with pollen. One of the more common species of predaceous thrips we have around here is six-spotted thrips, *Scolothrips sexmaculatus*. Adults are pale yellow and can be distinguished from other species by the three pairs of dark spots on the wings. Nymphs are translucent white to yellow and difficult to discriminate from other thrips species. Six spotted thrips can reduce high mite

populations, but often do not become numerous until mite densities are high and damage can be seen. Six-spotted thrips are commercially available. Other species of predatory thrips include banded thrips (*Aeolothrips fasciatus*) and black hunter thrips (*Leptothrips mali*). The following link provides excellent images of predatory thrips (<http://www.ipm.ucdavis.edu/PMG/C008/m008bppedthrips.html>).



A predaceous six-spotted thrips feeding on a spider mite. Note the six dark spots on the wings. Photo: Jack Kelly, UC

Predatory thrips are sensitive to pesticides. Careful selection and reduced use of insecticides can help to conserve populations of these good thrips and allow them to keep providing biological control of many common pests on our ornamental plants.

Plant of the Week

By: Ginny Rosenkranz, UME

Chelone lyonii 'Hot Lips or pink turtlehead is a native herbaceous perennial cultivar that thrives in part to full shade in wet to moist, rich, humus soils. Plants can grow 2-4 feet tall and 1 ½ to 2 ½ feet wide, spreading very slowly by rhizomes. If the soil is moist enough, the plants will self-seed as well. The bright pink flowers look a bit like snapdragons and as the name suggests, the flowers look like the head of a turtle. The hooded flowers are formed on a tall spike and are arranged on opposite sides of the spike, alternating North and South then East and West, blooming from the bottom up. The one inch blossoms are composed of 2 petals, one on top as a protective hood and the second on the bottom as a landing pad for pollinators. The bottom petal has bright yellow hairs which attract the pollinators like butterflies, bumble bees and even hummingbirds. *C. lyonii* 'Hot Lips' has red stems and brighter pink flowers than the species. The flowers bloom from August to September, bringing color to the moist, shady fall gardens. The foliage is slightly toothed, glossy and dark green. The foliage is arranged opposite of each other, similar to the flowers on the plants. *C. lyonii* 'Hot Lips' is said to be resistant to deer and attractive to native butterflies and other pollinators. Plants thrive in USDA zone 4-7 and can be used in the landscape in bog gardens, moist woodland gardens, shady rain gardens, or in a water garden. Plants have no serious disease or insect issues. If plants are allowed to dry out or there is poor air circulation, powdery mildew may be a problem.



Pink turtlehead (*Chelone lyonii*) is a late season bloomer that provides nectar for pollinators

Degree Days (As of September 26)

Aberdeen, MD (KAPG)	3549	Annapolis Naval Academy (KNAK)	4311
Baltimore, MD (KBWI)	3874	College Park (KCGS)	3773
Dulles Airport (KIAD)	3797	Frederick (KFDK)	3793
Ft. Belvoir, VA (KDAA)	3952	Greater Cumberland Reg (KCBE)	3538
Gaithersburg (KGAI)	3686	Martinsburg, WV (KMRB)	3526
Natl Arboretum.Reagan Natl (KDCA)	4371	Salisbury/Ocean City (KSBY)	3988
St. Mary's City (St. Inigoes, MD-KNUI)	4151	Westminster (KDMW)	3859

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

Improve Your Diagnostic Skills

By; Stanton Gill

We are working cooperatively with MAC-ISA in conducting a hands-on diagnostic skill building session for arborists and landscapers. The session will be held at Hood College in Frederick, MD. Contact Nancy Herwig, Executive Director, at exdirector@macisa.org for schedules 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

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

Recertification credits will be posted on the website
Recertification page listing participating states.

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](#)

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