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Pest Predictive Calendar

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 found in the landscape or nursery to sklick@umd.edu

Coordinator Weekly IPM Report:
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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 (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)

Disappearing Oak Foliage
By: Stanton Gill

Three weeks ago I put out a notice that orange-striped oak caterpillars had been spotted just hatching out. This week I received 3 emails asking about whole branches of oaks being defoliated. Mark Schlossberg, ProLawn Plus, found later instar orange-striped oak caterpillars this week. By now, these caterpillars have pretty much done their damage, but your customers are left with denuded oak branches. Tell them now to worry, oaks are being defoliated late enough in the season they will recoup next spring.

Biological Control Conference – Date is Set
The Biological Control Conference for Nurseries, Greenhouse and Interiorscapes will be February 1, 2018 at Carroll Community College in Westminster, MD. Put the date on the calendar and we will get back to you this fall with the schedule details. Two confirmed speakers are Michael Brownbridge and Rose Buitenhaus, Vineland Experiment Station in Canada. Both are excellent presenters and have done several practical biological control research over the years.
Slime Mold
With the recent rainy days, slime mold is showing on turf (and a few other plants) here at the research center. Slime mold is active on turfgrass in spring, summer, and fall, especially after rainy periods. It produces gray, purple, or black cigarette ash-like residue on leaves. It does not actually infect the turf, but can cause leaves to yellow since they are shaded. The crusty fruiting structures can be rubbed off easily by mowing or light raking.

These crusty fruiting structures of slime mold can be rubbed off easily of grass and other plants by mowing or light raking.

Velvet Ants (Are Wasps)
Jason Kopp, SCPS, found an adult female velvet ant (which is actually a wasp). The females are wingless; only the males have wings. Velvet ants are not aggressive, but the sting is quite painful so it is best to avoid handling the females. A female velvet ant oviposits one of her eggs near a larva or pupa in the nest of its prey (ground nesting bees and wasps). Adults will be active through September. Paula Shrewsbury has details in the October 3, 2014 IPM Report at https://extension.umd.edu/sites/extension.umd.edu/files/_docs/programs/ipmnet/14Oct03L.pdf.
Be on the Lookout for the Spotted Lanternfly (SLF) This Fall
Emelie Swackhamer, Horticulture Extension Educator, Penn State Extension

The spotted lanternfly (*Lycorma delicatula*) is a relatively new invasive insect in Pennsylvania. It threatens grapes, stone fruit and trees, but may be found on other plants. It has piercing-sucking mouthparts. It is also a nuisance in landscapes because it produces copious amounts of honeydew which attracts stinging insects and results in heavy sooty mold formation. The adults are starting to appear in the infested area, and they are quite noticeable. To try to limit the spread of SLF, the Pennsylvania Department of Agriculture (PDA) has established a quarantine order in PA municipalities where SLF already exists. To be in compliance with the order, everyone must make sure that they are not transporting any living life stages of the SLF to new areas which are not yet included in the quarantine.

To see a map of the current quarantined area and learn more about this new insect go to: [http://www.agriculture.pa.gov/protect/plantindustry/spotted_lanternfly/Pages/default.aspx](http://www.agriculture.pa.gov/protect/plantindustry/spotted_lanternfly/Pages/default.aspx) If you are outside of the area currently under the quarantine order, and you find an insect that you suspect is the SLF, please contact your local Extension office or State Plant Regulatory Official to have the specimen identified properly. This insect has not been found in Maryland yet, but it is found in parts of southeastern Pennsylvania. We need your help to watch out for it!

Fall Webworms
Jessica Frakes, SavATree, found early instar fall webworms active in Northern Virginia on August 17. This activity is part of the second generation. She noted that caterpillars are still small in that area. Infested trees here at the research center in Ellicott City have later instar larvae.

**Control:** If possible, prune out webbed terminals. Bt, horticultural oil or insecticidal soap can be used for early instars. Other materials include Conserve, Acelepryin, and Mainspring. There are many predators and parasites that help keep this pest below damaging levels.
Southern Red Mite
Jessica Frakes, SavATree, found all life stages present of southern red mite on cherry laurels in Potomac on August 17. Southern red mites are reddish brown and darker than most red spider mites found on woody ornamentals. The southern red mite is usually active in spring and again in the late summer when we start to have cool nights and warm days. The southern red mite can also be found on boxwood, holly, hibiscus and cotoneaster.

Monitoring: Use a light colored paper on a clipboard and place it under branches and tap them sharply. The mites, if present, should be easily seen running around on the light colored surface.

Control: There are several products labeled for mite control including Akari, Aza-Direct, Abamectin (Avid), and Forbid.

Brown Patch
Brian Scheck, Maxalea, Inc., is finding brown patch in turf in Baltimore County this week. Brian noted that the rains earlier in the week created good conditions for infection. Infection is promoted by high humidity and high temperatures so symptoms should decrease later on when we move into cool fall weather. Look for brown margins with tan centers on infected foliage. Although lawns turn brown they do recoup when the weather cools down. To reduce the incidence of brown patch in tall fescue lawns avoid applying nitrogen in the spring. Nitrogen promotes soft, succulent growth that is more susceptible to infection by the brown patch fungal pathogen, *Rhizoctonia solani*.

Oleander Aphids on Milkweed
Bright golden oleander aphids are easy to spot on milkweed plants. There are predators and parasitoids such syrphid flies, lady bird beetles, lacewings, *Aphidoletes* midges, and *Aphidius* wasps that feed on these aphids, but numbers of this aphid species are still often high on plants.
Plants Bugs on Milkweed
Carl Guerci found plant bug nymphs covering milkweed pods this week. Most likely they are large milkweed bugs, but there is also a species that is similar called small milkweed bugs (which are actually about the same size). Both milkweed bugs feed on the pods, but the small milkweed bug is also a predator of other insects. Since they show up later in the season, they are rarely a problem for the plants.

Milkweed bug nymphs are found in clusters feeding on milkweed pods
Photo: Carl Guerci

Woolly Bear Caterpillar
One of the common caterpillars spotted at this time of year as we move into fall is the woolly bear caterpillar. Jessica Frakes, SavATree, found one in D.C. on August 16. The color on this caterpillar can vary from orange to black to rust to tan. The woolly bear caterpillar feeds on a wide host range of woody and herbaceous plants.

A black form of a woolly bear caterpillar (it looks like an ant or spider is carrying another larva over it)
Photo: Jessica Frakes, SavATree
European Hornet
An European hornet (*Vespa crabro*) caught this bumble bee while the bee was nectaring at Joe pye weed flowers on August 15. The European hornet is the only true hornet in the US. It was introduced in the mid-1800s. European hornets feed on a variety of insects such as bees, wasps, crickets, grasshoppers, flies, and caterpillars. They also feed on fruit. In late August, the workers will start stripping off bark on trees and girdling trees such as lilac, dogwood, viburnum, and birch to get to the sap to feed. They use the strips of bark for building their nests. The paper nests are often built in hollow trees, barns, attics, hollow walls of homes, and abandoned bee hives.

Beneficial of the Week
By: Paula Shrewsbury and Mike Raupper, University of Maryland

Revenge on the Saddleback caterpillar!

It is that time of year again… saddleback caterpillars, *Acharia stimulae*, are surprising unexpecting plant enthusiast with their sting! This past week Rebeccah Waterworth (UMD) was out at one of her field research sites searching plants for insects. Suddenly, she felt the all too familiar sting of the saddleback caterpillar. Once you have been stung by the urticating hairs of the saddleback you remember that stinging feeling! So be on the lookout for this beautiful but painful caterpillar that is well camouflaged as it hangs out on plants feeding on the foliage. Camouflage and urticating hairs that deliver a painful sting – you would think this would keep predators away! But sometimes life allows us a little revenge. While hiking on the Appalachian Trail one day I noticed an unhappy saddleback caterpillar on a leaf. Upon closer inspection, I could see it was covered with 30-40 legless larvae that were protruding from its body. Some of the larvae had started to make little white cocoons and they attached to the caterpillar. Similar to an Alien movie, these larvae (immature wasps) had recently emerged out of the caterpillar, where they had previously been feeding on the insides of the caterpillar, to form their little white cocoons so they could complete their development. Some of you have seen similar cocoons emerging from big green hornworms feeding on your tomatoes. In both cases, these are the larvae or cocoons of small parasitic wasps in the genus *Cotesia*. *Cotesia* adults are only a few mm in length. Female *Cotesia* wasps hunt saddlebacks and other caterpillars on the foliage of plants. Upon encountering a suitable host, the wasps jump aboard and rapidly deliver many stings to the caterpillar using an appendage called the ovipositor. Each sting inserts a wasp egg into the caterpillar. Once inside the caterpillar, eggs develop and hatch, and then the wasp larvae feed on the tissues of its host. However, to survive successfully, the tiny wasp
larvae must avoid death by the caterpillar’s vigilant immune system. This is where a little help from their mother comes along. In addition to depositing eggs, mother *Cotesia* injected a special virus known as a polydnavirus into the caterpillar. The polydnavirus disables the caterpillar’s immune system, allowing her young to develop without interference. Once development is complete, wasp larvae move near the surface of the caterpillar, burrow through its skin, protruding out while still attached to the caterpillar body. The larvae spin a cocoon on the exterior of their host. The caterpillar looks like grains of rice have been stuck into it. After a bit of time wasp adults emerge from the white rice like pupa and go on to lay eggs in other caterpillars. Ultimately, the wasps kill the caterpillar. The circle of life continues.

[Click here to see a video](#) of wasp larvae emerged from a saddleback and creating their silken cocoons.

[Click here to see a video](#) of a *Cotesia* adult “stinging” or depositing an egg into a saddleback caterpillar.

**Weed of the Week**

By: Chuck Schuster, University of Maryland Extension

Giant hogweed, *Heracleum mantegazzianum*, is a noxious weed as listed on the federal noxious weed list. This plant can grow to heights of twelve to fifteen feet. Do not touch the sap of this plant as it can harm you. Hogweed has a biennial life cycle, though it can live for several years as a rosette, but when it produces seed (up to 20,000) it will die. It produces a dense taproot. It was brought into the United States in the early 1900’s from Europe as an ornamental plant. It has a hollow stem and produces white hairs at the nodes and the base of the petiole. The stem is green with purple blotches. It produces a cluster of small white flowers that is similar in shape to that of an umbrella. It is similar in appearance to that of poison hemlock. (photo 2)

Control of Giant Hogweed needs to start with caution. The sap can cause extensive skin burns. It can be cut down, or dug up. Chemical control with the use of triclopyr and glyphosate have been very effective, while 2,4-D and combination products are only effective at damaging the top growth but not effectively killing the roots.
Plant of the Week  
By: Ginny Rosenkranz, University of Maryland Extension

_Eutrochium dubium_ ‘Baby Joe’, ‘Baby Joe’ is a new compact, patented variety of the native Joe pye weed that blooms about a week later than ‘Little Joe’ pye weed. The differences between ‘Baby Joe’ and ‘Little Joe’ is the upright, compact habit, a moderately vigorous growth, and many more flowers held on strong upright stems of ‘Baby Joe’. Like all the herbaceous perennial Joe pye weeds, ‘Baby Joe’ is listed as deer resistant, very fragrant, and a magnet for pollinators of all sorts. ‘Baby Joe’ is a very compact plant that grows 2-4 feet tall and 1-3 feet wide which makes it desirable for smaller gardens where a 5-6 foot tall variety would overpower other plants. The bright magenta pink disk florets are arranged on an umbrella-like head and bloom from July to September, then mature to seed heads that provide winter interest in the garden. Flowers are also excellent for cutting and combining with other cut flowers. The mounded, toothed-edged, dark green foliage is arranged in whorls of odd numbers, 3-7, and creates an excellent background for the bright flowers. Plants grow best in full sun and moist to wet areas beside ponds, streams, rain gardens, meadows, native plant gardens, cottage gardens, pollinators’ gardens, usually at the back of the gardens, and even in containers. They are winter hardy from USDA zones 3-9, tolerant of clay and sandy soils, but may show leaf scorch if the soil is too dry. ‘Baby Joe’ does not grow true from seed, but has good powdery mildew resistance and no other serious insect or disease problems.

### Degree Days (As of August 16)

<table>
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<td>Annapolis Naval Academy (KNAK)</td>
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Important Note: We are now 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
Cut Flower Field Day/Tour

We worked with the Maryland Cut Flower Growers Association and the Association of Specialty Cut Flowers to set up a three farm visit (Honeybee Flower Farm, Smokey Cat Lavender Farm, and Seaberry Farm) for September 12, 2017. This year, we will be on the Eastern Shore of Maryland visiting some of the outstanding small to large cut flower operations.

See the brochure for details.

To register using a credit card, go to: http://2017cutflowertour.eventbrite.com

PGMS DC Branch Meeting Pope Farm Nursery
Program: Tour of Pope Farm
September 7, 2017
Gaithersburg, MD
For information: http://pgms.org/pgms-branches/district-of-columbia-branch/

Cut Flower Tour - Eastern Shore
September 12, 2017

Top Native Plants for the Mid-Atlantic Region
Presenter: Holly Shimizu
October 11, 2017
Location: Johns Hopkins University, Rockville, MD
Registration Information

Trees Matter Symposium
November 1, 2017
Location: Silver Spring Civic Center, Silver Spring, MD

December Pest Management Conference
December 15, 2017
Location: Howard Community College, Columbia, MD

MANTS
January 10-12, 2018
Location: Baltimore Convention Center

Advanced IPM Short Course
January 8 - 11, 2018
Location: University of Maryland, College Park, MD
Contact: Kiley Gilbert, 301-405-3911, kgilber4@umd.edu
http://landscapeipmphc.weebly.com/

FALCAN Pest Management Conference
January 19, 2018
Location: Frederick Community College, Frederick, MD

Biological Control Conference
February 1, 2018
Location: Carroll Community College, Westminster, MD

Eastern Shore Pest Management Conference
February 7, 2018
Location: TBD
Commercial Horticulture Conferences

Courses Taught by Chuck Schuster and Stanton Gill at Montgomery College

LNTP 190 Pesticide Use & Safety 2 semester hours (Class ends on Oct. 16)
Prepare for the pesticide application certification exam through a thorough understanding of the principles of pest control, including pesticide labeling, regulations and proper handling.
Wednesday 6:00 - 9:30 p.m. CRN 23220  Instructor: Chuck Schuster

LNTP 215 Pest Management*, ** 3 semester hours
Hone your pest management skills with Stanton Gill. Explore the identification of key pests, their life cycles and control methods, with emphasis on integrated pest management strategies.
Thursday, 6:00 - 9:30 p.m. CRN 23226, CRN 23228 Lab Instructor: Stanton Gill

For further information about the program or courses, contact Stephen Dubik (240) 567-7803 steve.dubik@montgomerycollege.edu

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