

Commercial Horticulture

August 5, 2022

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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:

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Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)

Weed of the Week: Chuck Schuster (Retired Extension Educator) and Kelly Nichols (Extension Educator, Montgomery County)

Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)

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2500 Degree Days Reached: 2nd Generation Japanese Maple Scale

Stanton Gill

Japanese maple scale, *Lopholeucaspis japonica*, has made a rebound in the green industry. We are receiving many samples from both nurseries and from landscapes. This armored scale hits a huge number of plant species. It also has one of the longest crawler periods of the armored scales. This scale insect is a major problem that needs to be dealt with quickly when found.



UMD-IPMnet

Look for the purple crawlers of Japanese maple scale

The time for action has arrived.

The second generation crawler period starts around 2500 degree days, which is at this level for most of Maryland this week. **Apply either Talus or Distance to infested plants.**

Spotted Lanternfly Has Distinct Adult Developmental Phases

By: Paula Shrewsbury

I was out in Hagerstown this week collecting spotted lanternfly (SLF) adults for a research study I am conducting. There were LOTS of adult SLF to be found. I had several people ask me what I was doing? When I replied collecting spotted lanternfly, I got some strange looks from some and lots of questions from others who were really interested in the SLF. Reports throughout MD and in the region indicate that the majority of SLF are in the adult stage, with some of the populations still in their 4th (last) nymphal stages.

Since SLF is an invasive species, is spreading quickly in the U.S., and causes damage to plants, it is of importance to learn as much as possible about SLF biology and ecology to slow its spread and determine best pest management practices for it. Since SLF was first detected in Pennsylvania in 2014, an abundance of research has been conducted, though there is still much to study and learn. Today I would like to discuss the adult stage of SLF.

Research has determined that SLF move to different host plants as they move through their development, with nymphs more commonly found on roses, herbaceous plants; as SLF move into their 4th nymphal and adult stages they move onto trees. Throughout their development they are always found on their preferred host, tree of heaven (*Ailanthus altissima*). At this time of year, adult SLF will be mainly found on tree of heaven and other tree species (ex. Black walnut, red and silver maples, river birch).

| Early-1 | Early-2 | Mid | Late |
|---|---|---|---|
|  |  |  |  |
| Feeding (Aug. 1 to 24) | Feeding and sex ratio skewed (Aug. 25 to Sept. 13) | Mating and major flight events (Sept. 14 to 30) | Oviposition (Oct. to Nov.) |

Phenological differences between the four adult developmental phases.
Image from OTIS Laboratory 2018 Annual Report, USDA APHIS

Research also found there are 4 distinct developmental phases of adult SLF. The adult phases have been designated as the Early 1 phase, Early 2 phase, Mid phase, and Late phase (from the USDA [OTIS Laboratory 2018 Annual Report](#) (see pages 56-58) . Studies of adult SLF physiology determined the Early 1 phase begins when adults first appear, adult feeding occurs, and the sex ratio is about 50:50 male and females on tree trunks. In the Early 2 phase, adults continue to feed heavily and the sex ratio changes to mostly females on tree trunks. The Mid phase begins when the first SLF adults begin to mate, followed by mass flights of adults, and the abdomens of females swell due to the ovaries developing after mating. When the first egg masses are laid marks the beginning of the Late phase. In these studies, 60% of females mated by late September and 100% by mid-October; the first egg masses were observed in early October.

Why is knowledge of the adult developmental phases important? Since SLF physiology changes between the phases, it may be that different phases vary in their susceptibility to different control measures. The study I am currently conducting, in collaboration with USDA APHIS, examines different commercially available mycoinsecticide (*Beauveria* spp.) against each of the four adult phases. The objective is to determine if any one phase is more susceptible to the *Beauveria* fungus than the others.

Lanternfly Sightings: Nick Economos, Scientific Plant Service, found fourth instars in Monkon on July 30; Robert Edelen, Edelen Tree Experts, found two adults in Fairplay (Washington Co.) on August 3.

Oleander Aphids Active This Week

By: Stanton Gill

We are receiving several pictures of oleander aphids on *Asclepias* plants this week. *Asclepias* plants have become popular for people to plant out for monarch butterfly larvae. There has been a corresponding increase in oleander aphids showing up with all of these plants as a food source being placed out into landscapes. Most insecticides would impact the oleander aphids, but they would also have a negative impact on the monarch larvae. It's not wise to use an insecticide for the aphids. One biological control you could try is releasing lacewing larvae to feed on the aphids.



Oleander aphids covering the stem of milkweed.

Photo: Bill Miller, The Azalea Works



Oleander aphids on common milkweed; a few aphid mummies are present.

Photo: Elaine Menegon, Good's Tree and Lawn Care

Caterpillars on Milkweeds



Milkweed tussock moth caterpillars

Photo: Nancy Woods, MNCPPC



Monarch caterpillar

Photo: Greg Kenel, Landscapes by Gregory

Nutrient Essentiality: The short story of nickel

By: Andrew Ristvey

This article was previously published in the September 2015 in IPM Alerts. New information has been added for this article.

As early as the mid-1980's, scientists were discussing the role of the element nickel in plant growth. While the element had been established as essential for cereal crops, evidence was mounting for the addition of nickel to the list of essential nutrients needed by all plants to carry on normal metabolism, growth and reproduction. According to Arnon and Stout, 1939, an essential nutrient is one in which a plant cannot complete its life cycle without, it must exert its effects directly, and no other element can substitute for it. We presently recognize 17 essential plant nutrients, 14 of them being mineral in form. Still, researchers continue to study other elements, like silicon, and their roles in essential plant nutrition.



Symptoms of mouse-ear nickel deficiency in river birch.

Photo credit to Dennis Fulbright and Bert Cregg, Michigan State University Extension, Plant Pathology and Horticulture - August 10, 2007

At the turn of the millennium, research in pecan orchards showed that a common growth malady called Mouse-ear (rounding of normally pointed leaflets), was being caused by nickel deficiency, brought on by years of zinc sprays to correct zinc soil deficiencies. Nickel, zinc and copper are known to

enter the plant through the same root-uptake pathways. As with many other nutrients, an overabundance of one can interfere with the uptake of another. Interestingly, the initial cure for Mouse-ear was thought to be a combination of copper and phosphorus, but the application of these would not cure severe symptoms. Close analysis of the phosphorus fertilizer showed that there were traces of nickel as a “contaminant” (Wood et al., 2004).

One of nickel's essential roles is in the metalloenzyme urease, enabling the plant to break down urea and preventing it from accumulating in leaves and causing leaf tip necrosis during certain stages of nitrogen metabolism and assimilation. Other effects of nickel deficiency include effects on plant growth like Mouse-ear, plant senescence, and iron uptake (Brown et al., 1987). Also, a variety of researchers have shown that nickel has a role in plant stress resistance (Ahmad and Ashraf, 2011).

It is possible that many nickel deficiencies have gone unnoticed in the greenhouse and container nurseries or have been misdiagnosed. According to Wood et al. (2004), deficiency symptoms may include one or a combination of the following symptoms: “bunted foliage, dwarfing, delayed budbreak, necrotic zones at the tip of leaves or leaflets, brittle shoots and branches, loss of apical dominance, resetting, crinkle leaf or leaflet margins, slightly necrotic foliage that later turns dark green, reduced growth, short internodes, and reduced flowering.”

Refinement of some fertilizers has eliminated nickel contaminants. However, I have seen that many complete soluble fertilizers do have nickel salts as an ingredient. Additionally, it is also in well water with concentrations sufficient for plants. Plant nickel concentrations typically range between 0.05 and 5 parts per million. Because nickel is only needed in very low concentrations, toxicity can easily develop if over applied, as with other micronutrients like copper, zinc or boron. Recently, a local nursery had identified this problem and applied nickel to correct the deficiency.

In 2005, Dr. John M. Ruter (University of Georgia) published a paper entitled “Effect of Nickel Applications for the Control of Mouse Ear Disorder on River Birch” in the Journal of Environmental Horticulture. He found that foliar or soil drench of nickel could correct the problem in container production, where the problem is most likely to occur. In comparing different treatments of affected plants, foliar sprays of nickel sulfate at 789 ppm and 394 ppm Ni were applied and 1.7 grams per cubic meter (0.08 oz Ni per cubic yard) as a substrate drench was applied to containers. Superphosphate and Milorganite, known to have traces of nickel, were added to the substrate as separate treatments. In 30 days, symptoms of mouse ear leaves were gone in foliar and drench treatments, whereas superphosphate and Milorganite amendments did not clear symptoms. The following growing season, plants with all foliar treatments and drench grew normally.

If you suspect nutrient deficiencies, have a leaf analysis performed to determine problem and corrective action. Since over-applied nutrients can act antagonistically against plant uptake or be toxic, it is not recommended to apply a nutrient amendment without knowing exactly the cause of the problem.

You can call me for additional information or with any questions you have at 410-827-8056 x113.

Vascular Streak Dieback in Redbud

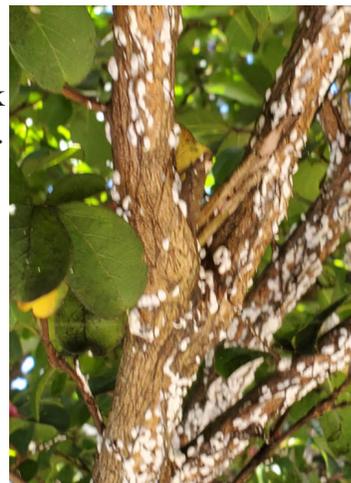
By: Karen Rane

Symptoms of stunting, yellowing foliage and branch dieback have been reported in redbud grown in nurseries in several states over the past 2 years. Dark streaks in the vascular system have also been observed in these trees, causing scientists to name this problem Vascular Streak Dieback. The “usual suspects” responsible for branch dieback and vascular discoloration in redbud, *Verticillium* wilt and *Botryosphaeria* canker, have not been found in these samples. A fungus that has been tentatively identified as *Ceratobasidium theobromae* or *Rhizoctonia theobromae* has been repeatedly recovered from symptomatic plants, and research is ongoing to determine the role it plays in the disorder. Researchers are also investigating whether other pathogens and/or abiotic stress factors may contribute to vascular streak dieback, but right now we have little information on this problem, its cause and how to manage it. In addition to redbud, there have been reports of the problem in dogwood and red maple, and in nurseries (field and container) as well as in landscape plants. Purdue University has recently published an article describing what is known (and not known) about this problem, including photos of the symptoms – check out the article at: <https://www.purduelandscapereport.org/article/vascular-streak-dieback-of-redbud-what-plant-pathologists-know-so-far/>

We are interested in learning if this problem is present in Maryland – so far we have had no confirmed reports from our state. Please contact me at rane@umd.edu or David Clement (clement@umd.edu) of the UMD Home and Garden Information Center, if you see symptoms of vascular streak dieback in nursery trees or recently planted landscape trees.

Crapemyrtle Bark Scale

Kevin Nickle, Scientific Plant Service, found a heavy infestation of crapemyrtle bark scale this week. Control information is available in the [August 13, 2021 IPM Report](#).



Crapemyrtle bark scale covering the trunk
Photo: Kevin Nickle, Scientific Plant Service

Solitary Oak Leafminer

Marie Rojas, IPM Scout, found solitary oak leafminers (*Cameraria hamadryadella*) feeding within small circular mines on oaks. Solitary oak leafminers are small caterpillars that mine oak leaves. Plant hosts include several species of oaks, but they prefer white oaks. They have minimal impact on the overall health of the tree so control is not necessary. Larvae overwinter in leaf litter so removing the oak leaves from the area can reduce the source of infestation next spring.



The solitary oak leafminer within its mine and exposed.
Photos: Marie Rojas, IPM Scout

Eriophyid Mites

Marty Adams, Bartlett Tree Experts, found some heavy eriophyid mite gall damage on *Cephalanthus* (buttonbush) this week. Although extensive on this plant, these galls do not cause significant damage and control is not necessary.



These galls on *Cephalanthus* (buttonbush) are caused by eriophyid mites.
Photo: Marty Adams, Bartlett Tree Experts

Yellow Poplar Weevil, *Odontopus calceatus*

By: Stanton Gill

Heather Zindash, The Soulful Gardener, brought in an interesting weevil this week. Thanks to Matt Bertone, NC State University, for the identification. The yellow poplar weevil, *Odontopus calceatus*, is also called the tuliptree leafminer, magnolia leafminer and the sassafras weevil. These tiny (about $\frac{1}{8}$ inch), black, chunky weevils feed on the buds and leaves. Their tiny, white, legless grubs mine in the leaves. The adults overwinter in leaf litter under the host trees. On warm spring days they fly up and feed on buds and leaves. In May and early June, they lay eggs in a row inside the midrib. After hatching, the grubs mine the leaves and cause blotch mines. Usually the blotch starts near the tip of the leaf. When ready to pupate, grubs move to an inflated portion of the mine and spin a spherical silk cocoon that soon turns brown. The inside of the mine is filled with strings of silk and frass. A new generation of adults emerges in mid-June.



Yellow poplar weevils feed on buds and leaves of tuliptree, magnolia, sassafras, and sweet bay.

Photo: Heather Zindash, The Soulful Gardener

By mid-July, adults are in the leaf litter where they remain inactive until spring. The yellow poplar weevil is a sporadic pest, and outbreaks occur at irregular intervals. We have one generation per year.

Yellow poplar weevils feed on and mine the leaves of tuliptree (yellow poplar), magnolia, sassafras, and sweet bay. Adults feed on the foliage causing chlorotic spots that make heavily damaged trees to appear scorched. Feeding by the newly emerged weevils can cause premature leaf drop.

Redheaded Pine Sawfly

Jay Everhart found redheaded pine sawfly, *Neodiprion lecontei*, on branches of a small 4 year old Deodar cedar. This native sawfly feeds on pines including jack, red, shortleaf, loblolly, Japanese black, mugo. Other hosts include deodar cedar and Norway spruce. The larvae feed gregariously. A group of larvae can defoliate whole sections of a pine very rapidly in late August to early September. There are two generations a year in Maryland

Control: For isolated trees, prune out branches where sawflies are aggregated. If numerous trees are infested, treat with Conserve or a synthetic pyrethroid.



Redheaded pine sawfly larvae feeding on Deodar cedar.

Photo: Jay Everhart

New Temperature High Reached for Parts of the United States

By: Stanton Gill

The last week of July was hot and humid, but we should expect these hot periods to show up in late July and early August as part of the new normal. NOAA reports that there are over 50 wildfires in the US this week. Several are occurring in Alaska. I spoke with my niece in the northern part of California this weekend. She said the temperatures were 115 °F and had been at this level for 3 days.

So, while we may have some hot periods here in Maryland in early August, it is certainly better than what they are experiencing in other parts of the USA.

Leafhopper Damage on Redbud

By: Stanton Gill

Heather Zindash, The Soulful Gardener, sent in pictures of a *Ceris* (redbud) with heavy stippling damage to the foliage. This is damage from the feeding of leafhoppers. The specific leafhopper is *Erythroneura tricincta*. It is a little late for control, but any of the systemic insecticides would work on this pest or a stylet blocker material such as Endeavor would have been a good choice.



Leafhoppers (*Erythroneura tricincta*) are causing heavy stippling damage to redbud foliage.
Photo: Heather Zindash, The Soulful Gardener

Spongy Moths (formerly Gypsy Moths)

Dan Feingold, Maxalea Inc., found spongy moths (formerly gypsy moths) laying eggs on July 28th in Greene Township Pennsylvania (middle of the state). If you see egg masses within reach, you can gently scrape them off the trunk of the tree.



Spongy moths laying eggs on the trunk of a tree
Photo: Dan Feingold, Maxalea, Inc.

Caterpillars Active

Marie Rojas, IPM Scout, found the following caterpillars in Gaithersburg this week. No control is necessary.



Ribbed cocoon-maker (*Bucculatrix* species) on 'Skinny Genes' oak
Photo: Marie Rojas, IPM Scout



White-marked tussock moth caterpillar feeding on beech foliage
Photo: Marie Rojas, IPM Scout

Web Blight on Holly

By: D.L. Clement Extension Specialist Plant Pathology

Rhizoctonia fungi usually attack plants at the soil line, causing constriction of the stem which results in girdling and death of the plant tops. However, when these pathogens attack above ground foliage, it is called web blight. The common name of this disease is from the matted blackened leaves that cling to the stems. This disease is especially severe when plants are grown close together and the leaves remain wet for extended periods. Outbreaks of web blight or Rhizoctonia aerial blight are seen most often cultivars of blue holly. This disease only occurs on landscape hollies during periods of high temperatures and humidity. Brown spots first appear along the leaf margins and then enlarge rapidly into irregular brown to black blotches over the entire leaf and stem. Blighting of the leaves usually starts closest to the ground and spreads upwards through the canopy. Symptoms usually stop with lower humidity and temperatures.

Management: When possible, thin and prune foliage to improve air circulation. Avoid overhead watering in late afternoon or early evening



Web blight on blue holly
Photos: Steve Sullivan, LandCare



Commercial Horticulture Drone School

By: Stanton Gill, David Clement and Andrew Ristvey

We held the second day of the drone school for professional horticulturists on Thursday. In this second part of the course, Kirk Floyd, KDrone Services, emphasized mapping an area and flying a drone in this mapped area. The picture shows the hands-on part of the program where students were taken from the lecture stage to the actual "How does this work in the field". We finished the day at 4:00 with each person free flying a Tello drone using an app downloaded onto their phone and controlled using a game controller. Students are learning a lot and getting practical experience with this 3-part training school.



Outdoor session during the drone school on August 4, 2022
Photo: Stanton Gill

If you missed signing up for this July/August session we will meet this fall and plan out future training sessions.

One thing Kirk pointed out is if you plan to fly drones over 248 grams of weight, you will need to obtain a 107 license. If you plan to apply pesticides using a drone on your own land or for hire you will need to obtain a 137 license.

Beneficial of the Week

By: Paula Shrewsbury

Why are those wasps flying over the turf?

It is that time of year again. Last week there were reports of green June beetle activity and pictures of them feasting on the fruit of plants. What is exciting about seeing green June beetles is that digger wasp activity should follow at any time now. Why am I so excited about all these scoliid wasps? Because they help to suppress populations of scarab beetle white grubs and they pollinate flowers such as spotted horsemint ([see video by M. Raupp, UMD](#)). There are about 20 species of scoliid wasps in North America. *Scolia dubia* is the common species active in August in MD and this region. They are ~ 3/4" in length,



Scoliid wasp adults fly over turf grass in search of white grubs in the soil to serve as food for their young.
(image by Mike Wilder, from <http://www.ces.ncsu.edu>)

have blue-black wings (2 pairs like most Hymenoptera) and black bodies except at the end of the abdomen, which is reddish brown and hairy with two distinct yellow patches. *Scolia dubia* mainly attack scarab grubs of **green June beetle** and **Japanese beetle**. These scarab beetles lay eggs in the soil of turf, garden beds, nursery stock, and grassy fields. Scarab eggs hatch and white grubs are active in the root zone into October. Scoliid wasp adults are most abundant and noticeable during August. Scoliid wasps [fly several inches above turf](#) infested with white grubs, often flying in a figure eight pattern. This figure eight flight is a courtship dance used to communicate with and attract mates. When flying over the turf, amazingly the female is able to locate a grub in the soil. She then “digs” her way down to the white grub. Once



Scoliid wasp adult (*Scolia dubia* shown here) feed on the nectar of a variety of flowering plants.
(image by Paula Shrewsbury, UMD)

the grub is located she stabs it with a paralyzing sting. This allows the female scoliid wasp to lay an egg on the underside of the paralyzed grub. The female will then construct a “cell” of hardened soil around the grub, the wasp egg hatches, and the not quite dead grub provides “fresh” food for the wasp larvae. Once mature, the wasp larva pupates and passes the winter in the soil within the cell. The wasp will emerge as an adult the next August. Sounds like a pretty slow and nasty death for the grub – and part of the circle of life.

The presence of Scoliid wasps indicates that green June beetle or Japanese beetle white grubs are present in nearby turf and that turf should be monitored for grub abundance and damage. If no damage is notable, let these beautiful wasps do their thing (or sting). Although Scoliid wasps may appear a bit intimidating when first seen in large numbers flying over the turf, they are not aggressive towards humans. Scoliid wasps are beneficial and can make a significant contribution towards suppressing white grub populations, and ultimately reduce damage to turf. In addition, adult scoliid wasps feed on the nectar of a diversity of flowers providing pollination services.

A few years ago about this time of year, Marie Rojas (Borders and Butterflies) shared a video with me of the insect activity on a planting of mountain mint (*Pycnanthemum* sp.) at her farm. Particularly exciting, and can be seen [in the video](#), was the abundant number of digger wasps (specifically *Scolia dubia*, Hymenoptera: Scoliidae) busy feeding on the floral resources provided by mountain mint. This native flowering plant is attractive to a large diversity of pollinators and natural enemies such as bees, wasps, butterflies, and more. It is a great addition to conservation gardens. Note that this plant spreads by rhizomes so you have to keep an eye on it.

Weed of the Week

By: Chuck Schuster

Fall Germinating Weeds:

Soil moisture varies a great deal currently. Some areas east of Frederick are very dry, while other areas have adequate moisture. With the current temperatures reaching into the mid 90°F and soil temperatures in the mid to upper 70° F as lows for the day, it is not time to start planning for a winter weed control program.

As August moves into September, an opportunity to prevent some weeds from getting started will happen soon. One may consider the application of organic or synthetic pre-emergent herbicides to landscape or turf areas to prevent many of the fall germinating weeds. Annual broadleaf weeds of interest will include common chickweed, corn speedwell, henbit and rockets, and perennial winter broadleaf weeds would include bulbous buttercup and mouseear chickweed. Moisture conditions this time of year may also benefit good control as moisture is important in activation of some herbicides. Remember that if you plan on seeding turf pre-emergent products may prevent turfgrass seeds from germinating.

Products to control these weeds would include isoxaben (Gallery) a formulation of Trifluralin and Isoxaben (Snapshot), oryzalin and oxyfluorfen (Rout). Dichlobenil can control some perennials; it has some post emergent activity also. Fall is not a bad time to apply these products, as temperature moderates the opportunity to volatilize decreases. Watch soil temperatures, as it is still warm enough that the fall weed germination period has not started. As soil temperatures again slide into the mid to upper 60°F range it will be time to have products applied and have been activated by moisture.

Plant of the Week

By: Ginny Rosenkranz

Hibiscus moscheutos ‘WhitXX’ or Cranberry Punch® is a dwarf herbaceous perennial hardy hibiscus that dies back each autumn and emerges very late in spring with new foliage. The hardy hibiscus always last of the herbaceous perennials to emerge from the cool spring soils, and they wait until the temperature are really hot in the mid to late summer to bloom. Cranberry Punch® is a hybrid of *H. moscheutos* by Dr. Carl Whitcomb, who also bred Flash Point® Swamp Hibiscus and many of the new crape myrtles including Dynamite®, Red Rocket® and Pink Velour®. The plants are cold hardy from USDA zone 5-9 and thrive in full sun, growing best in organically rich, moist soils, but tolerate most soils and can still bloom through droughts. They always bloom best with deep watering at least once a week. Plants grow 2-3 feet tall and wide with medium to dark green, shallowly serrated leaves that are triangular with 2 nodes near the stem. The leaves are arranged alternately along the green stems. Cranberry Punch® grows in a compact mound and holds their dark red, 4-5 inch rounded 5 petal blooms above the plants. The bright color attracts both pollinators and hummingbirds to the prominent showy stamen column. Each flower blooms for 1 sometimes 2 days, but new flowers bloom from large buds each day. The flower matures into seed capsules during the late summer or autumn, adding texture to the landscape. Cranberry Punch® can be grown in large containers, in



Hibiscus moscheutos ‘WhitXX’ or Cranberry Punch®
Photo: Ginny Rosenkranz, UME

Rain Gardens, along stream banks or in a perennial garden. After the foliage dies off the plants can be left as is in the landscape to offer winter interest or trimmed down to about 1-2 inches off the ground as a reminder that they are there in the landscape, just waiting a bit to emerge. Pests include blights, cankers, leaf spots and rust while insect pests include aphids, Japanese beetles (which can skeletonize the leaves), whiteflies and scale.

Degree Days (as of August 3)

| | |
|-------------------------------------|------|
| Aberdeen (KAPG) | 2234 |
| Annapolis Naval Academy (KNAK) | 2484 |
| Baltimore, MD (KBWI) | 2562 |
| College Park (KCGS) | 2381 |
| Dulles Airport (KIAD) | 2420 |
| Ft. Belvoir, VA (KDA) | 2431 |
| Frederick (KFDK) | 2254 |
| Gaithersburg (KGAI) | 2288 |
| Gambrills (F2488, near Bowie) | 2464 |
| Greater Cumberland Reg (KCBE) | 2235 |
| Martinsburg, WV (KMRB) | 2184 |
| Natl Arboretum/Reagan Natl (KDCA) | 2819 |
| Salisbury/Ocean City (KSBY) | 2593 |
| St. Mary's City (Patuxent NRB KNHK) | 2855 |
| Westminster (KDMW) | 2679 |

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

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 **2184 DD** (Martinsburg, WV) to **2855 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.

- Maskell scale – egg hatch / crawler (2nd gen) (**2035 DD**)
- Euonymous scale – egg hatch / crawler (2nd gen) (**2235 DD**)
- Mimosa webworm – larva, early instar (2nd gen) (**2260 DD**)
- Japanese maple scale – egg hatch / crawler (2nd gen) (**2508 DD**)
- Fern scale – egg hatch / crawler (2nd gen) (**2813 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.

Pests and Disease Control (Hort 230) offered at Howard Community College

David Clement, Plant Pathologist, and **Stanton Gill**, Entomologist, will be teaching a new 3 credit class at Howard Community College in Columbia, Maryland this fall. The class will emphasize diagnostics and IPM for landscape, greenhouse, and nursery plants.

The class will be held on Tuesday evening from 5:30 to 9:30 p.m in SET 181. First class starts August 30, 2022 and semester ends on December 13, 2022. The class will involve lectures and hands-on diagnostics with live samples examined in the lab section. The class can be taken for college credit or can be taken for an Audit.

To register go to: <https://www.howardcc.edu/admissions-aid/apply-for-admission/records-registration/register-for-classes/index.html>

Conferences

Solar on the Farm Webinar

August 16, 2022, 1:00 p.m. to 2:30 p.m. ET

Registration is required, but there is no cost for this program

Learn more at go.umd.edu/Solar2022

IPM Scouts' Diagnostic Session

August 25, 2022

Location: Wye Research and Education Center, Queenstown, MD

Urban Tree Summit

Dates: September 7, 8, 14 and 15, 2022

Montgomery Parks and Casey Trees, Washington D.C., present the eleventh annual conference — Urban Tree Summit. Presentations will focus on the health and welfare of trees in our increasingly developed landscapes.

Registration Link: <https://montgomeryparks.org/about/divisions/arboriculture/urban-tree-summit/>

September 7, 2022

MNLGA Nursery Field Day

Location: Longwood Gardens

[Registration](#)

September 27, 2022

Cut Flower Tour

Location: Zekiah Ridge Farm, La Plata, MD, and second site TBD

Fall Horticulture Classes at CCBC

You can find out about Fall Horticulture classes at CCBC by going to [their website](#).

Commercial Ornamental IPM Information
extension.umd.edu/ipm

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