UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture — August 14, 2020

In This Issue...

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)

Ambrosia Beetles Activity

By: Stanton Gill

Jason Sersen sent in this email on ambrosia beetle activity this week (August 9th) in Westminster. "I was surprised to find ambrosia beetles attacking a 20 year old, 10-inch caliper yellowwood tree at my home in Westminster. They have also attacked a black gum. I have never had a single sighting of these pests in the 17 years at my home. Is there a population surge this year? I did not see any adults to photograph. I did not yet see frass tubes so I sprayed the trees in hopes of saving them. I know there are different species and generations but I have never heard of them this late in the season. Thanks to the IPM reports, I have checked our nursery and have not seen issues here yet."

Look for wet areas and frass tubes on trunks for signs of activity of ambrosia beetles
Photo: Jason Sersen

Puss Caterpillar

By: Stanton Gill

About seven years ago, we received a call from a reporter on the Eastern Shore who wanted to write an article on caterpillars attacking humans. I thought she was joking at first until she explained that a young couple and their family on a Sunday stroll through downtown St. Michael's Island had a run-in with a caterpillar that resulted in the children being taken to the emergency ward at a local hospital.

Avoid touching puss caterpillars which have 'stinging' hairs which can cause serioius health problems
Photo: Chrissie McLaughlin

The caterpillar involved in the "attack" was *Megalopyge opercularis,* one of the stinging caterpillars. It has many common names, including southern flannel moth for its adult form, and puss caterpillar, asp, Italian asp, woolly slug, opossum bug, puss moth, tree asp, or asp caterpillar. In Maryland, it most commonly goes by the name puss moth.

The caterpillar, by the 3rd instar, is wooly or hairy looking and looks like a long haired dog with a bad hair day. The setae (looks like hairs) are connected to a venom sac in the body of the caterpillar. The venom travels up the setae and protects the caterpillar against many predators. It does attract attention of the uniformed.

Back to the young couple with children. In the St. Michael's Island case. The parents saw a cute hairy caterpillar on some holly plants on St. Michael's Island. The 4 year old held a couple and started petting the caterpillar. The youngest child was in a stroller. Somehow, some of the caterpillars were placed on the stroller tray. The child did what most young children do and put a caterpillar in its mouth to taste it. The youngest child was rushed to the hospital with their sibling who had rashes on his hands and arms from handling the caterpillar.

This week, we received a picture of this caterpillar feeding on sawtooth oak leaves in Essex from Chrissie McLaughlin. The amount of damage is not significant, and control is not necessary. If you see this caterpillar, send in pictures and the location. Inform your customers to observe the caterpillar, but not to touch it.

Saddleback Caterpillar

Continue to scout for saddleback caterpillars this week so hopefully you can avoid contact with them. Joni Desherow, Whitepearl Management, reported that they "found me today first before I went on the hunt for them" and "their sting is very distinctive". They were feeding on a 'Bloodgood' maple.

Saddleback caterpillars are another species to avoid because of their painful 'sting'
Photo: Joni Desherow, Whitepearl Management

Orangestriped Oakworms

Orangestriped oakworms continue to feed on plants. You will also see them moving across sidewalks, driveways, and parking lots looking for places to pupate as we move through late summer. They pupate in the ground, often near the trees on which they fed so they are often found in the same locations each year. Steve Clancy, Towncreek Landscaping, found them in Woodbine on August 11. Todd Armstrong, The Davey Tree Expert Company, found them on a young pin oak in Towson on August 12. Marie Rojas, IPM Scout, found them on an oak in Gaithersburg on August 12.

Control: Usually control is not necessary. Bt can be used for small caterpillars or use spinosad, Mainspring, or Acelepryn for control. Check for predators and parasitoid activity to determine if any control is warranted.

Orangestriped oakworms feed in groups (gregariously) on trees
Photo: Todd Armstrong, The Davey Tree Expert Company

Orangestriped oakworms can defoliate trees
Photo: Steve Clancy, Towncreek Landscaping

These orangestriped oakworms were parasitized

Fall Webworms

Marie Rojas, IPM Scout, reports that second-generation fall webworms continue to feed on a variety of plants in Gaithersburg and Adamsown this week.

Magnolia and Tuliptree Scale

By: Stanton Gill

Magnolia scale is the largest soft scale in North America and feeds only on magnolia trees. Another soft scale, tuliptree scale, feeds on both tulip and magnolia trees, but can occasionally be found on a few other species. During this past July through August, a great deal of honeydew, sooty mold, ants, and vespid wasps may have been observed on tuliptree or magnolia trees infested with either of these soft scales. During that time, the large mature females were using their piercing-sucking mouthparts to withdraw large quantities of sap from the phloem. They subsequently exuded a lot of honeydew that provided a substrate for growth of the black sooty mold fungus.

Tuliptree scale is covering this trunk of Magnolia 'Little Gem' in Washington D.C.
Photo: Marc Vedder

Unlike essentially all the other soft scale species they have crawler emergence in September. This fundamental difference is important to recognize in order to time sprays & achieve best controls. Tuliptree scale crawlers typically emerge approximately one week earlier than the magnolia scale crawlers.

The 1st instar crawlers will have a light brown coloration. Monitor using hand-lens or by the use of double-sided sticky tape wrapped around branches near the egg-laying females. Both scales reside & feed exclusively on woody tissues during all life stages. They overwinter as larger, dark colored, almost black, 2nd instar nymphs & can often best be observed on one or two year old wood. Systemics would work well applied as soil drenches. Horticulture oil can be used at 2 – 3% later this fall.

Bald-faced Hornets

John Stuart, Montgomery County DOT, reported that the Montgomery County DOT received its first confirmed bald-faced hornet nest in a right-of-way area of the 2020 season this week. John noted that the nest was abnormally small for August. In Montgomery Couny, you can report bald-faced hornet nests in a right- of-way tree by calling 311 from a landline or 240-777-0311 from a cell phone or out of county phone.

Bald-faced hornets do not reuse their nests
Photo: John Stuart, Montgomer Co. DOT

Comments from John: "I respond for service call from residents reporting bald faced hornets in ROW trees. The range I respond to is all MoCo DOT ROW, the whole county. Records are kept by 311 when a “bees nest in county tree”(aka call center speak for stinging insect in tree) is reported to 311. DOT Management and Risk Management require audit chains be kept on the these calls and the DOT’s response. A vast majority of these calls are Bald Face Hornets/European Hornets, and Yellow Jackets in stumps. Very few are actual bees.

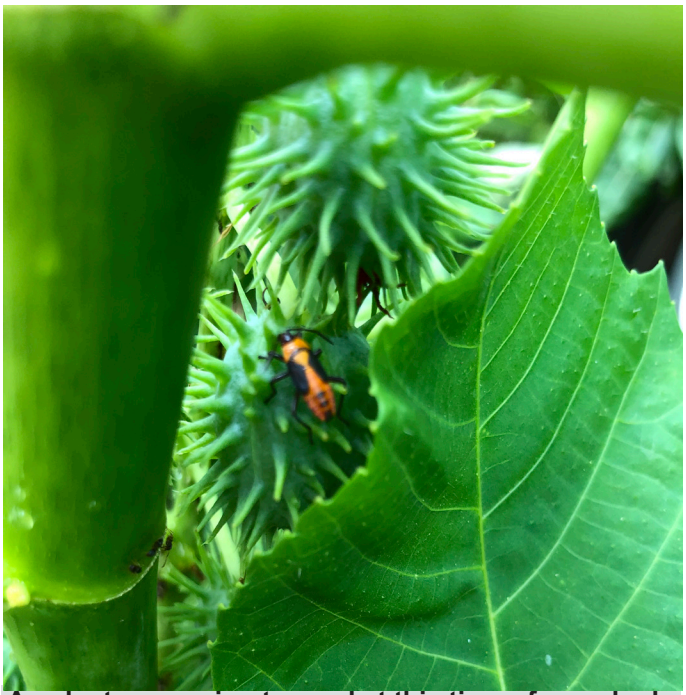
Pinecone Oak Gall

Marei Rojas, IPM Scout, found these interesting-looking galls on *Quercus bicolor* (swamp white oak) this week in Gaithersburg. Also called oak lobed gall, they are caused by the wasp, *Andricus quercusstrobilanus*. Control is not necessary for these galls.

Pinecone oak galls are light to dark brown and tinged with red
Photo: Marie Rojas, IPM Scout

Milkweed Bugs

Elaine Menegon Good's Tree and Lawn Care, found a milkweed bug nymph this week. Two species found in this area are *Oncopeltus fasciatus* (large milkweed bug) and *Lygaeus kalmii* (small milkweed bug). The small milkweed bug also feeds on a variety of plants and on small insects. The nymphs of both species feed on seeds.



As plants are going to seed at this time of year, look for more activty of both species of milkweed bug nymphs
Photo: Elaine Menegon, Good's Tree and Lawn Care

Small milkweed bugs (above, left) and large milkwed bug (below, left)

Dear Green Industry Professional,

Woods in Your Backyard Partnership are working to help expand Green Industry professionals suite of services offered to your clients to include creating and enhancing natural areas.

We would like your option on how to deliver information to you and other Green Industry professionals. We hope you can please take 5 minutes fill out this brief survey: http://go.umd.edu/WHPsurvey

University of Maryland Extension in partnership with Penn State Extension, Virginia Cooperative Extension, Virginia Department of Forestry and The Alliance for the Chesapeake Bay have created a program for Green Industry professionals to offer small scale natural area management services. These practices include wildlife habitat enhancement, forestry techniques such as crop tree release, tree planting, as well as invasive plant identification and control.

We have created a checklist and manual to help Green Industry professionals determine which enhancement practices can be recommended to landowners with natural areas. Along with these materials we are wanting to offer training. Participants of this training will be able to obtain professional association continuing education credits such as ISA, SAF, and LTE. This survey is to help us determine the best means to administer this programming. We want to hear about your interest in such a program, expense and how it can be best delivered.

For any questions please contact Agnes Kedmenecz at akedmen@umd.edu or 410-310-8445.
Thank you for taking 5 minutes to help us, help you expand your business. http://go.umd.edu/WHPsurvey

Request for Reports of Declining Oaks in Anne Arundel County

From: Earl "Bud" Reaves, CF, Anne Arundel County Forester

I recently had this app put up on the county website for residents and arborists to report oak decline. We are losing a lot of oaks and it's disturbing how much tree canopy we are losing. I am planning on compiling the information to target possible reforestation efforts. The budget may have something to say about that. If you could pass this around it would be helpful, We already have over 20 reports ranging from as few as 1 to as many as 20 dead trees. Thanks for your help.

Here's the notice: https://www.aacounty.org/departments/inspections-and-permits/blue-notice
Here is the link to the app: oak-decline app

Questionmark Caterpillar

Marie Rojas, IPM Scout, found a few question mark caterpillars on *Ulmus americana* in Adamstown on August 13. Other larval hosts include red elm, hackberry, Japanese hop, nettles (*Urtica*), and false nettle (*Boehmeria cylindrica*). This species overwinters in the adult stage. Unless found in high numbers, no control is necessary.

This question mark caterpillar was found on an American elm
Photo: Marie Rojas, IPM Scout

Smooth Patch on Oak

David L. Clement

When looking for reasons for oak decline in a landscape, you might observe an interesting symptom on trees in the white oak group. The symptoms include sunken white colored areas on the bark that goes under several names including smooth patch, white patch, or bark patch. It is caused by a superficial colonizing fungus, *Aleurodiscus oakesii*. The smooth patch fungus produces clusters of flattened cup-like spore bearing structures on the bark surface. These structures are light gray or beige in color, are usually less than 1/2 inch in diameter, and are usually curled at the edges. Since the fungus invades only the nonliving, outer bark tissues, this colonization is not harmful to the tree, and has no long-term effects on tree health. Exfoliation of the bark results in smooth, grayish patches adjacent to the normally rough bark. The most commonly affected oaks in Maryland are white oak, *Q. alba*, and post oak, *Q. stellata*. Smooth patch can be found on oaks in both urban and forested areas. This patch symptom is very commonly seen and can often be used in a forest setting for identifying white oaks from other oak species.

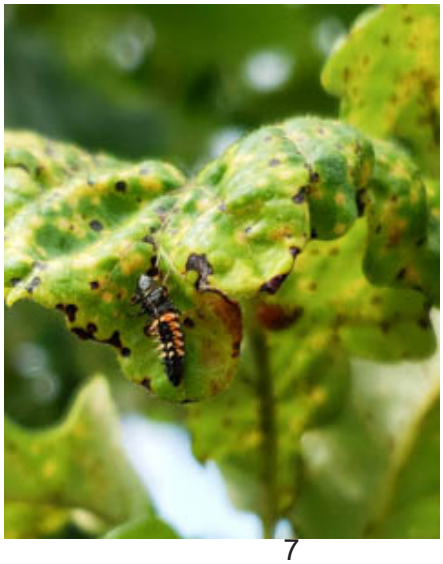
This sunken white colored area on the trunk of a white oak is caused by a fungus Photo: Miri Talabac, UME-HGIC

Correction from the August 7, 2020 Report

The report and photo credit for the bagworm silk activity last week should have been listed as from Nicolas Tardif, Ruppert Landscape. The changes have been made to the report posted on the IPMnet website.

Beneficial Insects

Marie Rojas, IPM Scout, has found various predators this week: lady bird beetle larva, lacewing, a praying mantid, and a wheelbug. The photos below from Marie are left to right: mantid nymph, lady bird beetle larva, and wheel bug.



Beneficial of the Week

By: Paula Shrewsbury

Caterpillar eating wasps

Last week, I wrote about a predatory wasp, the stink bug hunter, that specializes on stink bugs and leaf-footed bugs. In addition to the stink bug hunter wasp, there are a number of wasp species that frequent flowers, and feed caterpillars to their young. I recently observed *Monobia quadridens* (Hymenoptera: Vespidae), the four-toothed mason wasp, which is an omnivorous wasp that feasts on caterpillars and pollen. *Monobia* is a solitary mason (or potter) wasp found in the eastern U.S., New Mexico, Kansas, and Wisconsin, in addition to other areas of North America. *Monobia* is mostly black with a white band on its upper abdomen and few white patches on other areas of its body. The wingspan is about ½" for males and slightly larger for females. Males have a white patch on their face; females have all black faces. As adults a large proportion of their diet is pollen, making them good pollinators. They also provide a diversity of smaller caterpillar species to their young for food making them good predators.

Adult four-toothed mason wasp, *Monobia quadridens*, feeding on pollen from spotted horsemint, *Monarda punctata*. You can see the pollen that has fallen onto its thorax.
Photo: M.J. Raupp, UMD

Monobia's life cycle consists of two generations per year. Adults emerge in the spring, go through a complete summer generation, and then the next generation overwinters as pupae in nesting chambers. They are active from around May to October. *Monobia* are often seen in open habitats with flowers. Each female selects her own nest location (solitary) from a diversity of natural cavities such as abandoned tunnels of carpenter bees or on occasion ground nesting bees; old mud dauber nests; and hollow plant stems. *Monobia* females provision their "tube-like" nests with caterpillars for their young. Within a tube, a female makes multiple "cells". A female *Monobia* hunts for caterpillars, stinging and paralyzing them with her venom, and then flies them back to the nest. The female places multiple paralyzed caterpillars into her nesting tunnel. She lays an egg in the tunnel with the caterpillars and then seals the tunnel section with a mud partition creating a cell. Interestingly, the next cell in the tunnel she makes is empty, and then the next contains caterpillars and her egg. It is thought that these empty cells are used to "fool" parasitoids of

A *Monobia quadridens* wasp that just emerged from its nesting hole, which was formerly a carpenter bee hole.
Photo: Royce Milam, BugGuide

Monobia larvae into thinking the tunnels are empty. A female makes approximately 5-7 cells per "nest", with the last outer most cell always being empty. A female may have more than one nest. This nesting behavior is also common for mason bees.

Like most wasps, the females can deliver a sting, which contains venom, using their ovipositor. For *Monobia* the pain from this sting is described as comparable to that of a bald faced hornet (ouch!). Interestingly, unlike most wasps the males of *Monobia* can also deliver a sting. Since males lack an ovipositor they use the tip of their abdomen that does not inject venom, which results in pain similar to a pinprick. Most solitary wasps are not aggressive. So unless you are trying to catch them with your bare hands you should have no worries. I have had them flying around my patio and flowerbeds and they are busy finding nesting sites and food, not trying to sting people.

It seems many of the beneficials we discuss are omnivorous and use pollen (protein source) and nectar (carbohydrate source) as a food resource, in addition to prey (all kinds of good stuff). So keep planting flowers to attract and support beneficials! Particularly attractive to a diversity of very interesting wasps, such as *Monobia*, is spotted horsemint, *Monarda punctata*. Be sure to include this plant in your plantings.

Weed of the Week

By: Chuck Schuster

Rainfall has helped many weeds outgrow desired annuals in the landscape flower beds. It seems that weeds recover faster than those desired splashes of color provided to plant every year. This weed, velvetleaf, was found in an area that in previous years had never been noted by one landscape professional. The question presented to me was not for identification, but from where did it come. A little bit of CSI and we determined that it most likely came in the compost added to the site, as the weed was growing on the compost pile at the shop

Photo 1- Courtesy of Cheryl McKinlay

Velvetleaf, *Abutilon theophrasti,* is an erect summer annual from Asia that can be found on roadsides, nurseries, landscapes, and unmanaged turf areas throughout the United States. It is considered noxious in some states (not Maryland) [Photo 1]. This broadleaf weed can grow up to seven feet in height with an unbranched stem, leaves are generally heart-shaped, alternate, and are two to six inches in diameter. The leaves (photo 3) are densely covered with hair on both upper and lower surface giving the plant a velvety feeling (thus the plants common name). The leaf veins originate from a central common point and radiate outward. This plant has a shallow taproot (photo 2).

Photo 2: Root System Chuck Schuster

Single flowers are produced on a short stalk between the stems and petioles. These flowers are from ½ to 1 inch in diameter with orange petals and occur from mid-July through late fall. Plants produce between 70 to 200 seed capsules per plant with each capsule containing on average 40 seeds. This plant does not have a specific seed dispersal mechanism, making most movement from site to site done so either in improperly composted materials, or by humans. Seed longevity in the soil is limited in the upper portion of the soil profile as its germination percentage drops to less than 50% in only 2 years, but some seeds will remain viable for up to 16 years. Improperly composted plant material containing livestock manure, or landscape weed waste can be a source of this weed into new areas.

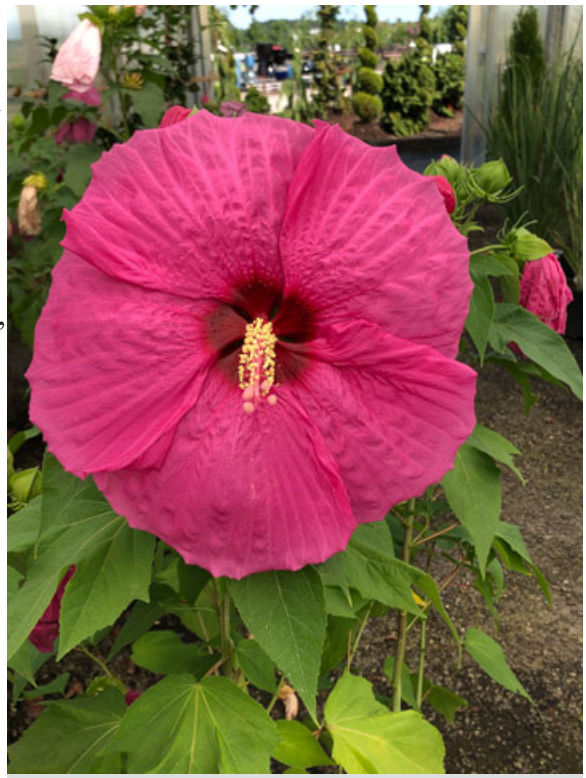
Control of velvetleaf is accomplished early in the season with pre-emergent broad leaf herbicides isoxaben (Gallery) (Snapshot – a combination of isoxaben and Trifluralin), Surflan, Ronstar (Oxadiazon) and post emergent non selective products including glufosinate (Finale) and products that include glyphosate, Prizefighter, and Burnout, among others. Prizefighter and Burnout will require more than one application in some cases. Usually not an issue in turf, when found in unmanaged turf areas, it is easily controlled by 2,4D and dicamba products. Use caution with these products as they may cause damage to nearby ornamentals through movement and volatilization.

Photo 3, Leaf structure C. Schuster UME

Plant of the Week

By: Ginny Rosenkranz

Hibiscus moscheutos 'RutHib2' *PPAF* or better known as Hibiscus Head Over Heels® Passion is a cultivar of our native herbaceous perennial swamp hibiscus, but with a lot more punch. When grown in full sun, the maple leaf shaped foliage with 3 lobes is burgundy in color rather than bright green. The 5 overlapping vibrant dark pink petals have a deep red center eye which contrasts nicely with the column of tiny bright yellow anthers that surround the style.



Hibiscus Head Over Heels® Passion is a compact grower, reaching 2-3 feet tall Photo: Ginny Rosenkranz

Plants are cold hardy from USDA zones 6-10 and thrive in full sun, and moist, organically rich soils. Once established, the plants can grow and bloom during droughts, but regular watering produces more flowers. Hibiscus Head Over Heels® Passion is a compact grower, reaching only 2-3 feet tall and 3-4 feet wide. The flowers wait until the heat of summer to bloom and with good watering practices the flowers can expand to 8 inches across. The flowers might only last 1 to 2 days, but there are always a lot of buds that will bloom later. Dead heading the spent flowers will make the plants more attractive and it could encourage the plants to re-bloom. Hibiscus Head Over Heels® Passion can be used as a low summer hedge, in a rain garden, or as a lovely specimen in the garden or in a container. Once the leaves have fallen in the autumn, cut the stems down to 2-4 inches above the ground. Hibiscus are often the last of the herbaceous perennials to emerge in the spring and leaving the stubs of the plants will insure knowing just where the plants will come up in the late spring. Pests include Japanese beetles and occasionally whiteflies, aphids, and scale. Diseases include some susceptibility to leaf spots, blights, rust, and canker. Abiotic leaf scorch is present if the soils are too dry.

Pest Predictive Calendar "Predictions"

By: Nancy Harding and Paula Shrewsbury

In the Maryland area, the accumulated growing degree days (DD) this week range from about 2210 DD (Cumberland) to 3010 DD (Reagan National). 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.

- Euonymus scale – egg hatch / crawlers 2nd gen (2235 DD)
- Japanese maple scale – egg hatch / crawlers 2nd gen (2508 DD)
- Fall webworm - egg hatch/active caterpillar tents 2nd gen (2793 DD)
- White prunicola scale – egg hatch 3rd gen (3270 DD)
- Banded ash clearwing borer - adult emergence (3357 DD)

See the Pest Predictive Calendar for more information on DD and plant phenological indicators (PPI) to help you better monitor and manage pests.

Degree Days (as of August 12)

Aberdeen (KAPG)	2355
Annapolis Naval Academy (KNAK)	2638
Baltimore, MD (KBWI)	2759
Bowie, MD	2820
College Park (KCGS)	2581
Dulles Airport (KIAD)	2638
Frederick (KFDK)	2591
Ft. Belvoir, VA (KDA)	2732
Gaithersburg (KGAI)	2506
Greater Cumberland Reg (KCBE)	2210
Martinsburg, WV (KMRB)	2385
Natl Arboretum/Reagan Natl (KDCA)	3010
Salisbury/Ocean City (KSBY)	2728
St. Mary's City (Patuxent NRB KNHK)	2906
Westminster (KDMW)	2717

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

Hone Your Diagnostic Skills With These Upcoming LCA Webinars

Tree Problems—Diagnostic and Solutions

Thursday, August 20 | 10:00 am–11:30 am ET

Karen Rane, David Clement, and Stanton Gill of the University of Maryland Extension will cover diagnostic skill building for dealing with major tree problems caused by physiological conditions, disease, and insects. Participants will learn the steps in diagnosing tree problems. The team will cover major current tree problems in 2020 in the landscape and what you do to control these diseases and pests using IPM methods based on our and other university research efforts. An audience interactive question and answer session will be held at the end of the presentation.

Go to https://www.lcamddcva.org/ to register

MANTS 2021 Update

From Vanessa A. Finney, Executive Director, MNLGA:
Facing extended health and safety concerns brought on by the pandemic, and the new certainty that the Baltimore Convention Center will remain a field hospital at least through the end of December, the MANTS board of directors announced the development of alternate plans for MANTS 2021. Details of this plan are underway and expected to be released in several weeks.

Please see full press release here.

Climate and Sustainability Webinars, 2020

Dr. Sara Via, Professor & Climate Extension Specialist, University of Maryland, College Park

Upcoming Program: Last one for Summer 2020
Aug. 26, 2020 Climate change is bad for your health

See the brochure for more information and a link to register.

Landscape Technology Program: Montgomery College - Germantown Campus, Fall 2020

LNTP 105 Intro. to Sustainable Landscaping 2 semester hours - All online
Gain a broad overview of trends within of the Green Industry, including techniques and approaches for maintaining and improving soil health, composting, and managing stormwater, as well as provide a basic understanding of growth and nutrition to ensure environmental sustainability. Students will learn about national, state and local guidelines promoting sustainability in landscape design and management.
Monday, 7:30 - 9:10 p.m. CRN 22487

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 22118, CRN 22119 Lab

LNTP 222 Turfgrass Management*,** 3 semester hours
Discover the proper way to manage turfgrass by using the newest and most adaptable turfgrass varieties for minimum insect and disease problems. Organic lawn care and alternative groundcovers will be discussed. This course will help prepare the student to become certified by the State as required by Maryland's newly enacted Lawn Fertilizer Law. Lab assignments emphasize weed, turf, and insect species identification.
Tuesday, 6:00 - 9:30 p.m. CRN 22121, CRN 22123 Lab

LNTP 253 Plant Materials I† 3 semester hours
Learn how to identify and properly use trees, shrubs, vines, and groundcovers in both residential and commercial landscape situations. Plant characteristics, such as seasonal interest and habit, are stressed so that appropriate plant selections can be made for any landscape situation. Class offered at two locations
Monday's section meets, 1:00 – 4:30 p.m. Agricultural History Farm Park - CRN 22650, CRN 22651 Lab. The Agricultural History Farm Park is located at 18410 Muncaster Road, Derwood, MD, 20855
Wednesday's section meets, 6:00 – 9:30 p.m. Germantown Campus - CRN 24016, CRN 24017 Lab

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

Web registration: www.montgomerycollege.edu

Classes start August 31, 2020

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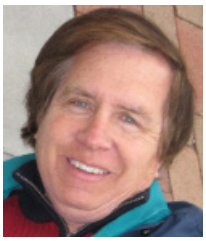

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Thank you to the Maryland Arborist Association, the Landscape Contractors Association of MD, D.C. and VA, the Maryland Nursery, Landscape, and Greenhouse Association, Professional Grounds Management Society, and FALCAN for your financial support in making these weekly reports possible.

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