UNIVERSITY OF MARYLAND EXTENSION

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

Commercial Horticulture **July 24, 2020**

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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

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Taxus/Camellia Pulvinaria Scale

By: Stanton Gill

The Pulvinaria scale, cottony Taxus/camellia scale has become extremely widespread on hollies, especially Chinese hollies. Back in Late May and June, we received many pictures of the females producing their distinct white ovisacs just before hatch and the crawler period. S. David Krimis sent in these comments this week:

"I was trimming lower branches off two different kinds of holly trees, and found these particulate structures on the backs of many leaves. I do not see any significant damage to either kind of holly. Is there any attention these require?"

What David is seeing is the settled 1st instar stage of the cottony Taxus/ Camellia scale on the undersides of the foliage. A systemic insecticide would control them in July, but pick a day with cooler temperatures below 90 °F.

Settled 1st instars of cottony Taxus/camellia scale are present on host plants such as holly now Photo: S. David Krimis

Lightning Strike

Todd Armstrong, Davey Tree Experts, reported that yesterday afternoon (July 22), there were strong thunderstorms with a lot of thunder and lightning and 2 3/4" of rain in Monkton. Todd also noted that one of his clients had a yellow poplar that was struck.

Tree damaged by a lightning strike in Monkton on July 22
Photo: Todd Armstrong, Davey Tree Experts

Spotted Lanternfly in Cecil County

Stephen Goff, MDA Ag Inspector, found adult and nymphs in Rising Sun in Cecil County. They were all found at the same location. Nymphs and adults were also found recently at a location in Washington County.

If you find spotted lanternflies in Maryland, be sure to report them to MDA at their online site at DontBug.MD@maryland.gov.

Nymphs and adults are active in Cecil County
Photos: Stephen Goff, MDA

Excessive Heat Causing Leaf Drop in Trees

By: Rachel Ross & Karen Rane

We aren't the only ones feeling the heat lately. High temperatures can have a significant impact on the health and vigor of a variety of plants. In particular, leaf drop in trees,such as tulip poplar and river birch, is a symptom we are likely to observe throughout this stretch of hot weather. Leaves may also appear wilted, scorched (browning around the leaf margins), or yellowed. Symptoms are favored by limited moisture available to the plant. During high temperatures, moisture evaporates from the leaves rapidly and roots cannot replace the moisture as quickly. Thunderstorms that accompany hot summer weather may provide enough soil moisture for trees in some locations, but storms are usually scattered and some areas do not receive adequate rainfall. We may not be able to control the high temperatures, but reducing overall stress of the tree with proper irrigation (deeply soaking the root zone once every 7-10 days if conditions are dry) can help mitigate the overall impact of heat stress.

Yellowing foliage and leaf drop on river birch, a common occurrence during periods of high temperatures. Photo: K. Rane, UMD

Ivory-marked Longhorned Beetle Borer

By: Stanton Gill

Wayne Noll, City of Rockville Forester. Department of Recreation and Parks, sent along a picture for identification that Adam Belidam shot of a longhorned borer in Rockville. The beetle is *Eburia quadrigeminata*, the ivory-marked borer. It is one of the more beautiful, gold-colored longhorned borers. It is very common for it to be out looking for a mate in July and early August on the East Coast. Larvae live in the heartwood for many years. Control is not necessary. Ivory-marked borers do not attack living hardwoods, rather they infest dead hardwood trees including hickory, locust, and ash.

Ivory-marked longhorned beetles infest dead hardwood trees Photo: Adam Belidam

Io Moth Larvae

By: Stanton Gill

Heather Zindash, IPM Scout, sent in photos of a group of spiny caterpillars feeding on a redbud foliage. One of these are larvae of the Io moth, *Automeris io* (Fabricius). This moth is found throughout the East Coast and part of the Mid-west. We usually see larvae feeding late July through August. There is one generation per year. Although io moth larvae are polyphagous, they may have regional host preferences. In Maryland, we often find them on redbud, maples, and cherry trees. The spines covering the body can give a sting and the spines protect the caterpillars. Do not handle the larvae, just observe. People do vary in sensitivity to the spine toxin. It can cause painful swelling and temporary welts for some people. They do not purposely attack humans, but if you touch them, it may not be pleasant. The spines may also repel some insect predators. Murphy et al. (2010) found that reduviid bugs and *Polistes* wasps were less likely to attack heavily spined limacodid larvae than weakly spined ones.

There were much smaller caterpillars on the plant of white flannel moth caterpillars (*Norape ovina*). There are 11 pairs of raised yellow tuffs along this strip bearing hairs (setae). There are smaller tuffs along each side of the body. The dark long silky hairs do not sting, but shorter needle like hairs at the base of the tuffs are stinging. The larvae can be found on redbud, honey locust, hackberry, mimosa, and beech. Larvae occur later in the summer.

White flannel moth eggs (left), caterpillar damage (center), and io moth caterpillar early instar larvae (right) Photos: Heather Zindash

Hot, Hot, Hot = Spider Mite Problems

By: Stanton Gill

Spider mites are having a “heyday” this week with the hot, sunny weather, Steve Sullivan, Landcare, called in to inquire about mite control on winged euonymus. He said the populations exploded in the first couple of days of this week. He tried a horticultural oil at 1.5% rate. By Thursday, he did not see any phytotoxicity to the foliage. I spoke with Paul Wolfe of Integrated Plant Care, and he said during the summer he has used 1.5 % horticultural oil, which has had good success on spider mites. The trick, he said, is to apply in the morning on a day when there is low relative humidity so the oil dries quickly. He has used this technique for several years with overall success.

Yellownecked Caterpillars

Marie Rojas, IPM Scout, is finding yellownecked caterpillars on *Fagus grandiflora* and several *Quercus* species. Look for these caterpillars feeding gregariously on a wide range of plant hosts. Caterpillar activity occurs now through October.

Control: Parasitic wasps and tachinid flies help keep caterpillar populations in check. Bt can be used for small larvae and other labelled insecticides can be used for larger caterpillars if needed.

Yellownecked caterpillars are active through the end of summer
Photos: Marie Rojas, IPM Scout

Orangestriped Oakworms

Marie Rojas, IPM Scout, found orangestriped oakworms on *Quercus phellos* and *Q. coccinea* this week. These caterpillars feed in clusters and initially skeletonize leaves. Larger caterpillars are defoliators and only leave behind the leaf mid-rib. The caterpillars will feed en masse and completely defoliate whole branches. Control is best when caterpillars are in the early instar stages. Bt and Spinosad work very well. Acelepryn or Mainspring will also work well.

Orangestriped oakworms will continue to be active through the summer
Photo: Marie Rojas, IPM Scout

Fall Webworms

Marie Rojas, IPM Scout, is reporting second-generation activity of fall webworms on *Malus* 'Adirondack' and *Cercis canadensis*. Fall webworms feed on a wide range of woody plants within webbing they produce on tips of branches.

Control: If possible, prune out webbed terminals. Bt, horticultural oil, or insecticidal soap can be used for early instars. Other control options include spinosad (Conserve), Acelepryn, and Mainspring (from Syngenta Company). There are many predators and parasites that help keep this native pest below damaging levels.

The second generation of fall webworms usually causes more extensive damage to plants than the first generation
Photo: Marie Rojas, IPM Scout

Maple Petiole Borer

Marie Rojas, IPM Scout, found maple petiole borer on *Acer rubrum* this week. Prune out damaged branches.

Maple petiole borers are still causing damage at this time
Photo: Marie Rojas, IPM Scout

Ground Wasps

By: Stanton Gill

Patty Tracy, J&P Lawn Service, Inc., sent in a picture of a wasp with these comments: “I have a customer who has a lot of these little “wasp-like” creatures in their gravel driveway. There are about 25 holes and I assume one creature to a hole. The customer has told me that over the years, these insects come back year after year but they are multiplying. They are not protective of their holes so they are not a problem; we just wanted to know what they are.

I watched one take a small grasshopper down into the hole, but could not get my phone out in time to get a picture. So, I now know that they are feeding something in the hole…..most likely their young.”

After this picture was submitted by Patty, I received a similar call from Bill Stocker on this wasp in Leonardtown in St. Mary’s County. He said they were digging in the sandy soil. He noticed it while he was fishing on a river inlet.

Great golden digger wasps provision their nests with paralyzed katydids and crickets
Photo: Patty Tracy, J&P Lawn Service, Inc.

This insect is the great golden digger wasp, *Sphex ichneumoneus*. Great golden digger wasps are a native species found throughout the United States and Canada. They dig burrows in sandy soil, which they provision with paralyzed katydids and crickets on which the young wasps feed. Unlike honey bees, they're solitary, although multiple individuals may nest in the same area if the soil conditions are right. They are not generally considered pests and usually are not aggressive, although I would caution against handling them, as they are large, and likely have a painful sting. If you want to prevent them from nesting in your yard, you can try watering the area with a hose to make it too wet for them to nest or change the soil conditions by adding topsoil.

Thanks to Michael Skvarla, Ph.D. Assistant Research Professor of Arthropod Identification Department of Entomology Penn State University for the ID.

Tough Times for Organic Fruit After Wet Cool Spring

By: Stanton Gill

The impact of a wet, cool spring is showing up now with fruit plantings. Gymnosporangium rust has flourished this spring and into the summer. Mark Schlossberg sent in pictures of this rust showing up on hawthorn fruit. We have received many electronic picture of rust showing up on apple and pear plantings.

We have visited a couple of sites with fire blight showing up on European and Asian pears in Potomac, Rockville, and Davidsonville in the last month. Pruning this damage out well below the infected tissue on dry days is the best you can do for this bacterial disease in summer.

Gymnosporangium rust on hawthorn fruit
Photo: Mark Schlossberg, ProLawn Plus Inc.

Josh Rosenstein, Edible Eden, sent in pictures of an organic apple planting he had worked on, asking what was damaging the foliage and fruit. A little of everything, disease-wise, showed up after a very cool and wet spring with high disease inoculum putting pressure on even disease resistant apple varieties. Apple scab and powdery mildew are showing up on his plants. Insect damage includes leafhopper damage and plum curculio damage. It is too late in the season to correct these problems. Well timed, preventative applications back in April through June would have really made a difference in a season like 2020. If your customers are seeing poor quality fruit this summer, they are not alone.

Plum curculio damage on apples
Photo: Josh Rosenstein, Edible Eden

Powdery mildew on apple foliage
Photo: Josh Rosenstein, Edible Eden

Wildlife Have a Feast in 2020

By: Stanton Gill

This spring, garden centers and big box stores could not keep fruit trees and shrubs in stock enough in April, May, and June. Covid-19 created a crazy desire for everyone to try their hand at growing their own fruit. We have many landscapers sending pictures of their clients' peach trees completely de-fruited. Squirrels and deer are cleaning up in urban landscapes. One person complained to their landscaper that their cherry tree was loaded with fruit. They had kept the birds off with a tight fitting net. They took off the net in anticipation of harvesting the fruit with a couple of days and they wanted the sunlight to bring up the sugar level. They came out one morning to find two female deer feasting on their fruit tree. They took off the fruit and the leaves, while they were at it.

Jim Davis, Deep Run Paw Paw Orchard tells me he has seen opossum and raccoons climbing trees for fruit. He also said a groundhog ate his blueberries, then chewed the major branches on the blueberry shrub leaving a mess of his shrub. Just so you know, groundhogs can climb fruit trees and we have received reports of them sitting in the low branches of peach trees having a grand time snacking.

On Sunday, when driving down to the Olney market, I saw a car parked in the roadway. I stopped to make sure they were ok. They said there was not a car problem, but they have fruit trees in their backyard that a raccoon was harvesting so they used a Hav-a –heart trap and captured a raccoon. They were releasing it in an Olney neighborhood, which, they proclaimed, was a couple of miles from their house. It is no longer their problem, I guess.

I asked Donna Davis of DNR to comment on capturing wild animals to relocate. Here is her response:

"I received your inquiry about trapping and relocating raccoons. It is illegal in Maryland to relocate wild animals that are at high risk for carrying and spreading rabies, including raccoons. It is also illegal to trap raccoon out of season. If the animal is causing problems or damage (or ill) the landowner can get an exception permit. Attached is the info from the DNR website and the web page address."

There are so many new fruit plantings that went in this year and the wildlife is saying "thanks". If you planted blueberries in your customer landscapes, you better have installed a really well fitting, very fine mesh netting system because bird activity this spring has been very high and many people reported that their blueberry bushes have been cleaned out by bird activity. Netting with ½" openings or larger is often ineffective. The birds will bounce on the netting until they can reach through the holes to grab the fruit. I was just speaking with a Canadian company that makes what is called Bug netting that is a fine enough mesh it will keep birds out fairly well. I will be testing this one out in our orchard where we have seedless grapes.

It is great to grow fruit but sometimes it is very frustrating for urban/suburban fruit growers since the wildlife thinks you are growing it solely for them. Therefore, they send this message "plant more fruit".

Gray Times Ahead

By: David L. Clement

Botrytis on a zinnia flower
Photo: David Clement

With recent evening rains in our area, Gary mold caused by the fungus *Botrytis cinerea,* may become more visible on old flowers and yellowing foliage of annuals and herbaceous perennials. In some cases infected tissue can become fuzzy gray overnight, or may become spotted. In severe cases infection of petiole stubs can lead to stem cankers. Prolonged humidity and our high summer temperatures can create a perfect storm for infection. Sanitation in the form of grooming older leaves and dead heading old flowers from plants is the most important step in managing Botrytis infection. When possible avoid irrigation late in the day to allow foliage to dry before nightfall. Thin or space plantings to promote better air circulation. Unfortunetlately fungicides cannot control heavy infections, and in addition, *Botrytis* has developed resistance to several fungicide groups. The best management strategy is to keep up with your maintenance schedules and to remove any older flowers and foliage before infection.

Botrytis on a petunia flower (left) and a vinca plant (right)
Photos: David Clement

Felted Scale

By: Stanton Gill

Christa Carignan, UME-HGIC, sent along this picture of a bur oak heavily infested with felted scale, in the superfamily Coccoidea, family Eriococcidae. Oak eriococcid scale, *Acanthococcus quercus*, is very noticeable in early to mid-summer on trunks and branches which will be covered with the felted egg cases that look like the head of a cotton swab. These scales also produce honeydew which will coat the leaves and surfaces below the trees and can foster black sooty mold. Most of the samples I receive of this species of felted scale come from the Eastern Shore, but occasionally it shows up in the middle and western part of Maryland. This sample picture actually came from Pennsylvania so they may be a little behind with the hatch out of crawlers.

Oak eriococcid scale is heavily coating this bur oak trunk Photo: Christa Carignan, HGIC

The felted scale include some of the scale we are finding more commonly in Maryland in the last couple of years. Felted scales are a family of scales that include azalea bark scale (*Acanthococcus azaleae*) - been around for a while in Maryland, crape myrtle bark scale (*Acanthococcus lagerstroemiae*) – the new kid on the block in Maryland in 2020, European elm scale (*Gossyparia spurius*), and oak eriococcid scale (*Acanthococcus quercus*).

The very common characteristic of these scales is that all have a felted covering that is most apparent when adult females are producing eggs. Female oak eriococcid scales are producing eggs now in midsummer. They produce a fluffy felted egg case with lots of eggs that will hatch in the coming weeks. The crawlers (first instar nymphs) move to new growing branches to feed. They will mature in midsummer and produce a second generation. They often go unnoticed except when the females are producing the white wax in mid-summer.

At this time of year, watch for crawlers over the next 2 – 3 weeks and use either Distance or Talus insect growth regulator.

Dog Day Cicadas

Dog day cicadas (*Tibicen canicularis*) are active at this time of year. You can hear the adult cicadas at night. Look for the predaceous female cicada killer wasp that takes the paralyzed cicada back to a burrow to feed its young. No control is necessary.

Cicada killer mounds on a sidewalk Photo: Mark Schlossberg, ProLawn Plus, Inc.

This dog day cicada nymph was found crawling across an asphalt sidewalk on July 20

Dollar Spot in Turf

Mark Schlossberg, ProLawn Plus, Inc., sent in photos from one of his technicians of dollar spot mycelium in a lawn in Cockeysville on July 22.

This heavy dollar spot infection was found in Cockeysville this week
Photos: Technician, ProLawn Plus, Inc.

Tuliptree Scale

By: Stanton Gill

Tuliptree scale, *Toumeyella liriodendri*, is an important soft scale insect pest of tulip tree (*Liriodendron tulipifera* L.) and other species in the family Magnoliaceae. Deciduous magnolia is an excellent host for this scale. It is interesting that it is a native scale insect and in forests rarely reaches high enough numbers to cause injury since parasites and predators usually keep it in check. With new plantings of tulip poplar, this scale can cause major dieback and even death of young trees.

Three years ago, I was called to a site to look at 20 ft deciduous magnolias that were dying back. They were loaded with tuliptree scale. We examined the the trees on the property and found that the homeowner had a large planting of tulip trees that had been installed 4 years earlier and they had a built up a huge population of tuliptree scale. The crawlers were blown to the deciduous magnolia planting and increased rapidly. The deciduous magnolias were not handling this scale well and lost up to 40% of their canopies. The customer was not a happy person.

I received this email from a forester in western Maryland: “I am Bob Schwartz, and I'm a forester in Washington County. I'm not sure if this is the way to go about it but a landowner emailed me a picture (attached) of what I believe to be tuliptree scale near Leitersburg. It has apparently caused the demise of several sapling sized tulip

poplars in a restoration planting on her property over the last 2 weeks. It may have been behind several others that died last year (she did not take pictures of those trees). I've looked at UMD's and Florida's publications on tuliptree scale/scale management and it seems impractical to use an insecticide in this situation, given that there are numerous affected trees, but given the mortality it also seems that it might be warranted."

Tuliptree scale produces crawlers in August and September

Over the last twenty-five years, interest in native plants has grown tremendously. Many nurseries are growing tulip poplars to move into native landscape plantings. With this increase in popularity, we are also seeing an increasing number of scale problems. Native plant nurseries will want to examine their plants to make sure they are not sending out scale-infested plants. Horticultural sprays impact the scales and this is an inexpensive and effective method to keep this scale suppressed.

The crawlers show up later in the summer. We have a nicely infested deciduous magnolia in a 15 gallon container at CMREC and we will let you know when we see crawlers show up later this season. At crawler stage, Talus or distance will work well in control.

Beneficial of the Week

By: Paula Shrewsbury

Where are all the butterflies?

As I watch insect activity on the flowering plants in my yard and elsewhere I am wondering where are all the butterflies? I have been asked the same question from many others over the past weeks. I have seen relatively few butterflies this year, especially compared to 2019, which was an amazing year for all kinds of butterflies. For example, last year at this time I counted 35 butterflies visiting my cup plant, *Silphium perfoliatium*, at the same time (see the *Beneficial of the Week* from Aug. 2, 2019). So what is going on? Why so many fewer butterflies this year? Well of course there is no single or for sure answer when you are talking about biology. However, there are some biological explanations for this phenomenon.

Large, observable fluctuations in insect abundance are actually a common phenomenon. Consider Japanese beetles, where some years they outbreak at such large numbers they seem to be defoliating plants everywhere, whereas other years numbers, and their damage is much lower. This same pattern is observed repeatedly over the years with gypsy moth caterpillars. These cyclic fluctuations are different from long-term patterns in insect decline affected by factors such as habitat loss, pesticides, climate change, and urbanization. Cyclic fluctuations of butterfly adult and caterpillar (and other insect) abundance can be strongly influenced by natural enemies and weather.

Food webs are very complex and consist of many direct and indirect interactions among the different levels of the food web. In general, when something happens to organisms at one level of the food web (ex. primary producers - plants), it affects organisms at other levels of the food web (primary consumers - herbivores). When food is abundant and of good quality, insect fitness is high. This results in higher survival and reproduction rates of insects such as butterflies and their caterpillars. If there is a year when the weather is optimal for plant growth, then insects that feed on those plants (herbivores and omnivores) should have greater fitness

and their populations will increase. Since we had a great Lepidoptera (butterflies and caterpillars) year in 2019, it suggests that 2019 and the year or so before that produced optimal food for Lepidoptera. As you move along the food web, the high populations of Lepidoptera will result in high numbers of natural enemies (ex. birds). As prey (Lepidoptera) numbers increase, the abundance of natural enemies will increase. This pattern is referred to as a numerical response. Eventually, natural enemy abundance "catches up" to the prey (they eat more prey), and the prey populations "crash". If there are more natural enemies, more prey (Lepidoptera) are consumed, resulting in lower populations of prey = fewer butterflies. The cycle continues in that if prey availability is reduced then natural enemy abundance will also go down. If natural enemy abundance goes down, than prey (Lepidoptera) abundance starts to go up again. Cycles of natural enemies and their prey items is a common phenomenon in nature and occur over years. Insect population cycles usually occur every 5 - 10 years.

2019 was a great year for butterflies as you can see from the amount of activity on this cup plant, Silphium perfoliatum. I counted 35 butterflies on the plant at one time!
Photo: P.M. Shrewsbury, UMD

Natural enemies of Lepidoptera include predators, parasitoids, and pathogens. A major predator of caterpillars are birds. I have noted that certain species of birds are more abundant this year than previous years (ex. blue jays, wrens, etc.), likely a numerical response to the high number of caterpillars last season. Predatory and parasitic insects that feed on caterpillars also likely increased in response to the high number of caterpillars. Pathogens (ex. fungus, viruses, bacteria) also respond to high populations of caterpillars. As we have sadly learned from COVID, the closer organisms are to each other physically, the greater the probability of passing along a pathogen. Outbreak levels of caterpillars often result in an epidemic of a pathogen. A good example of this is with gypsy moths and the fungus *Entomophga maimaiga*. Every 7-10 years there are significant outbreaks of gypsy moth followed by years of very low gypsy moth numbers due to the fungus moving through the high gypsy moth populations killing a large proportion of the caterpillars.

Let's hope that mother nature favors butterflies and caterpillars this year so they can build up their populations soon. For those of you who want to enjoy that abundance of butterflies digitally click here to see a video of the amazing butterfly activity on the *Silphium perfoliatium* in my yard at this time last year.

Weed of the Week

By: Chuck Schuster

Field bindweed, *Convolvulus arvensis*, is a perennial plant, which reproduces from seed or rhizomes. A native of Europe, it is now found worldwide. The plant has bell-shaped leaves and produces a white flower (on rare occasions a pink flower). This weed can produce stems that can grow several feet in length growing horizontally or climbing into and covering shrubs and trees. A new plant can produce roots that can grow downward to five feet in the first year and have a circumference of ten feet. Over time this plant, depending on soil type, can sink roots to greater than fifteen feet (some reports of up to thirty feet) where it is stealing both moisture and nutrients from desired species of plant material.

It differ from morning glory, as it is an annual, does not produce rhizomes, and is much easier to control. The root system on morning glory is not as deep or problematic as with bindweed. Morning glory is actually planted by some as an annual flower.

Mechanical control is difficult due to the rhizomes and low growth habit. In some studies it has been shown that regular cultivation, up to 25 times in a growing season, can be helpful in stopping field bindweed development. Less rigorous cultivation can actually help spread the plant as breaking the roots acts as one method of spread. Freezing and thawing of the soil helps to break seed dormancy. Seeds can remain viable for up to 30 years. Burying the seed to a depth of greater than 12 inches prevents germination, but only until brought to the surface later. Herbicides for suppression include glyphosate and 2,4-D products depending on location. Neither chemical application is considered a single application control method. Timing of application should be mid to late summer and early fall, with close monitoring of the site for return growth. Care needs to be used with the use of these products to prevent damage to the desired species of plants in the landscape near this weed.

Photo 1: Field bindweed
Chuck Schuster

Photo 2: Morning glory
Chuck Schuster

Plant of the Week

By: Ginny Rosenkranz

Magnolia grandiflora 'Bracken's Brown Beauty' is a wonderful small, but elegant cultivar of our native magnolia, growing only 20-30 feet tall and 15- 20 feet wide. The native species *Magnolia grandiflora* can reach heights of 60-80 feet and as wide as 30-50 feet, which means it needs a lot of space to grow comfortably while *Magnolia grandiflora* 'Bracken's Brown Beauty' will fit nicely in many sunny spots in the landscape. The plants are compact and grow into a narrow but dense pyramidal crown. Although a very southern belle, it is one of the most cold tolerant of the evergreen magnolias. It is cold tolerant from USDA zones 6-9. Plants thrive in moist, organically rich, slightly acidic, well drained soils in full sun to partial shade and can use a bit of winter protection in the coldest zones. *Magnolia grandiflora* 'Bracken's Brown Beauty' has glossy dark evergreen

leaves about half the size of the species, and beautiful pure creamy white, extremely fragrant cup-shaped flowers that expand to 4-6 inches. The flowers bloom the most in the spring but continue to bloom sporadically all summer long before maturing into fuzzy cones about 3 inches long. The seeds mature to a rose-red color and hang suspended on thin threads before being enjoyed by native birds. 'Bracken's Brown Beauty' leaves are leathery and shiny on top, but the underside of the leaves is a rusty, cinnamon-colored, fuzzy brown, giving a pretty bi- color look to the plants especially on a breezy day. After winter when spring warms up the air, the old leave drop off but are usually hidden buy the dense new growth foliage. Plants are slightly tolerant of flooding, drought and salt air. With careful pruning, plants can be grown espaliered against a wall. Pests can include magnolia scale, tulip poplar weevil (leafminer), and Magnolia borer. Diseases include black mildew, leaf spots caused by fungus and algae, canker diseases and Verticillium. Raking up the fallen foliage and removing it can control many of the leaf spots and mildew.

***Magnolia grandiflora* 'Bracken's Brown Beauty' is a smaller cultivar growing to 20-30 feet tall**
Photos: Ginny Rosenkranz

Correction Note: Last week's report included the crape myrtle cultivar 'Potomac', but it should have been 'Pocomoke' for that particular cultivar series. There is a cultivar called 'Potomac'.

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 1642 DD (Cumberland) to 2333 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.

- White prunicola scale – egg hatch / crawlers 2nd gen (1637 DD)
- Obscure scale – egg hatch / crawlers (1774 DD)
- Orangestriped oakworm – egg hatch / early instar (1917 DD)
- Maskell scale – egg hatch / crawlers 2nd gen (2035 DD)
- Euonymus scale – egg hatch / crawlers 2nd gen (2235 DD)
- Japanese maple scale – egg hatch / crawlers 2nd gen (2508 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 July 22)

Aberdeen (KAPG)	1752
Annapolis Naval Academy (KNAK)	1996
Baltimore, MD (KBWI)	2097
Bowie, MD	2162
College Park (KCGS)	1974
Dulles Airport (KIAD)	2005
Frederick (KFDK)	1967
Ft. Belvoir, VA (KDA)	2100
Gaithersburg (KGAI)	1893
Greater Cumberland Reg (KCBE)	1642
Martinsburg, WV (KMRB)	1776
Natl Arboretum/Reagan Natl (KDCA)	2333
Salisbury/Ocean City (KSBY)	2074
St. Mary's City (Patuxent NRB KNHK)	2241
Westminster (KDMW)	2050

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

Climate and Sustainability Webinars, 2020

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

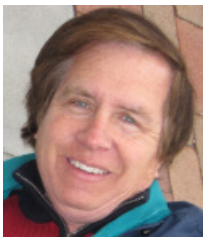
Upcoming Programs:
July 29, 2020 What can the pandemic teach us about being (un)prepared for climate change and other global disasters?
Aug. 12, 2020 The power of individual choice: what can individuals do to combat climate change and how much difference will it make?
Aug. 26, 2020 Climate change is bad for your health

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

Please Note:

The cut flower program scheduled for July 28th is full. There is a waitlist, but no walk-ins will be allowed due to Covid-19 restrictions.

CONTRIBUTORS:



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