UNIVERSITY OF MARYLAND E X T E N S I O N for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture

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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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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), David Clement (Extension Specialist) and Fereshteh Shahoveisi (Turf Pathologist) 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) Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center) Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Some Rain - Finally

By: Stanton Gill, UME

The rain in some locations on Monday and Wednesday was not "huge" by any means, but we are thankful for anything we can get after two mini-drought periods this May and June. Is this enough - certainly not. You should continue to irrigate your customers' plant material that may suffer from the drought conditions. It would require 7" of rainfall to replenish the soil moisture levels to where they should be at this time of year.

On the positive side, I have not recorded so much solar gain on solar panels as we have experienced over the last 45 days with all of the bright, sunny days. If you installed solar panels, pat yourself on the back. If you are on the fence about installing them, start talking to people who already installed the panels.

The next IPM Scouts' Diagnostic Session is June 28.

Go to our <u>Conference Page</u> for more information and to register.

June 16, 2023

Problems on Leyland Cypress

Christopher Reppert, The Davey Tree Expert Company reported the following: "I have been observing widespread interior foliage yellowing/cycling of Leyland cypress over the last week or two. Clients in Northern Virginia are calling in and very concerned about this. I think it may be due to the current drought conditions and is a little more noticeable than usual. I have been advising my clients to water their stands of Leyland cypress to reduce drought stress and this can help to suppress cases of sieiridium canker as well, which is basically ubiquitous with Leyland cypress at this point and seems to worsen with any sort of stress."



Yellowing of interior foliage of Leyland cypress is showing on some trees this week. Photo: Christopher Reppert, The Davey Tree Expert Company

Aphids on Lamb's Ear

By: Sheena O'Donnell, UME

Aphids were found on lamb's ear plants this week. The damage does not look like typical aphid damage. Plus, most people don't expect to see aphids on a fuzzy plant like lamb's ear. The discolored blotchy spots look more like disease pressure than pressure from a sucking insect. These aphids are small and hard to see without a scope or magnifying glass - they looked like mites at first. On further inspection there were many parasitized aphid mummies. Check aphid populations for brown/ tan or black swollen aphid bodies - some may have exit holes. If you see mummified aphids, there are parasitoid wasps active and caution should be used if applying insecticides as they will also kill off the beneficial predatory wasps.



Aphid feeding damage on lamb's ear looks like it could be a disease issue. Photo: Suzanne Klick, UME





An aphid found on lamb's ear (left) and one with an exit hole that had been parasitized by a wasp. Photos: Sheena O'Donnell, UME

First Japanese Beetle Adults for 2023

By: Stanton Gill, UME

Ron Miller, SuperLawn Company, found Japanese beetles in Fairfax, VA on Wednesday of this week. Mike Baker, Grounds Guys of Annapolis, found the adults in Chesapeake Beach on crape myrtle on June 13. He noted they were his first sightings of the new year. Todd Armstrong, The Davey Tree Expert Company, found his first Japanese beetle adults this year on a raspberry plant in Jarrettsville on June 12. We will be seeing more of these adults over the next couple of weeks. One of the first plants on which they generally feed are ornamental plums and Linden trees. They then fan out to birch trees, sassafras, grapes, roses, and then move from tree species to tree species for different nutritional requirements.

In our trials, some of the most effective materials have been Mainspring and Acelepyrn. At rates of 6 oz per 100 gallons were obtain 7 - 10 days of control. At higher rates of 12 - 14 oz per 100 gallons we obtained control for 2-3 weeks.



Japanese beetles adults are active in Jarrettsville. Photo: Todd Armstrong, The Davey Tree Expert Company

This Japanese beetle adult was active in Chesapeake Beach. Photo: Mike Baker, Ground Guys of Annapolis

Bagworms

Joe Smith, Efficiency Enterprise of Md, reported that bagworms hatched in Rising Sun on June 9. Marie Rojas, IPM Scout, found early instar bagworms on arborvitae on June 15. Bt (Dipel, Caterpillar Attack), Spinosad (Conserve) or Acelepyrn will all give good control of young larvae

> It is best to time insecticides for bagworms when the caterpillars are small. Photo: Marie Rojas, IPM Scout

Lace Bugs

Luke Gustafson, The Davey Tree Expert Company, found a fair amount of lace bug feeding damage in Baltimore City. Examine newer foliage for stippling damage on upper leaf surfaces. Look for dark colored frass spots and active lace bugs on the underside of leaves. There is a range of predators and parasitoides that feed on azalea lace bug that include lady beetles, lacewings, and other predacious bugs, in addition to an egg parasitoid. If populations are high, use insecticidal soap or oil (ensure contact with lace bugs on the underside of the foliage), or systemic insecticides.

If you see heavy yellow stippling on the azalea foliage, look on the underside of the leaves for signs and stages of azalea lace bugs.

Photo: Luke Gustafson, The Davey Tree Expert Company

Boxwood Leafminer Larvae

Check for boxwoods that you are monitoring to see if small boxwood leafminer larvae are present. Marie Rojas, IPM Scout, found tiny boxwood leafminer larvae in leaves this week in Montgomery County. When young larvae are present, it is the time to treat with Avid.

Spotted Lanternfly Update

By: Kenton Sumpter, MDA

At this point, lanternfly has been active for two months. The insects have emerged in many of the same areas that they were found last year. The population has shifted a bit from last year. Baltimore County and Baltimore City are currently the hottest areas in the state this year. Hagerstown appears to have a lower population at this moment. MDA has received 688 submissions to the online survey since January. We encourage all Marylanders to continue to report your sightings to us and help us to track the infestation. Be sure to check your vehicles and any transported items for hitchhiking lanternfly. All applicable businesses need to acquire a spotted lanternfly permit. Transported items need to be inspected whenever they have risked exposure to lanternfly. You can find the link to the permit training on our website at mda.maryland.gov/ spottedlanternfly. A template for the inspection record can also be found on our website.

Spotted lanternfly hot spots in Maryland are in Baltimore County and Baltimore City at the moment. Photo: MDA map

Please direct any questions you have regarding lanternfly biology and the terms of the quarantine and permit system to me at kenton.sumpter@maryland.gov or call me at 540-566-9157. Thanks!

Spotted Lanternfly Field Trials

By: Stanton Gill, UME

On Thursday afternoon, Brian Kunkel, Suzanne Klick, David Clement and a bunch of University of Delaware undergraduate students, and I met with Eric Hadaway, Daft McCune Walker, to collect 2nd and 3rd instar nymphs of spotted lanternfly. We are collecting these bugs for trial to evaluate use of new systemics and the entomopathogenic fungus Metarhizium for control of spotted lantern flies. We must say, it was a real challenge trying to capture the nymphs at this stage because they run to the other side of a branch or leaves and will rapidly leap off a surface. We got enough for the first round of our trial but are hunting for areas with mass numbers. If you got a good infested site close to Baltimore area let me know.

One thing that Brian Kunkel's fellow entomologist, who is working on SLF in Delaware, noted that the nymphs of SLF are not doing well with this dry weather and the natural mortality is high. This is good news for us humans. We will keep you updated on our trials as they progress.

Brian Kunkel (blue shirt) and student workers from the University of Delaware helped collect spotted lanternfly for a joint trial. Photo: Stanton Gill, UME

Watch For Southern Blight If You Are Overhead Irrigating

By: Sheena O'Donnell, UME

Many growers are having to irrigate more than usual lately because of the drought conditions that we have been experiencing. Those who use overhead irrigation should look for signs of southern blight on their plant material. This disease affects over 500 plants and thrives in warm (80-95 °F), moist weather. Infected plants can yellow and wilt within days. Although we have not had much rain, overhead irrigation paired with the humidity and temperatures we have been experiencing can lead to this disease. Even light rains are enough moisture for disease to thrive, but not enough for the ground, or growing media to be saturated, and stressed plants are more easily affected by disease pressure. Early symptoms of southern blight include water-soaked spots on lower leaves, stem lesions, and rotting of crowns, and roots. Cankers and lesions on lower stems can

Southern blight on delphinium. Photo: Christa Carignan, UME-HGIC

girdle and kill branches, or whole plants. Thick white mats of mycelia begin to grow from infected tissue and spread through the soil around infected plants. Any part of a plant touching infected soil can then be infected with the disease.

Management: This fungus can remain dormant in soils for a long time by the formation of tan sclerotia. Removal of dead plants and their immediate surrounding soil as well as washing cultivation equipment thoroughly to prevent movement of sclerotia will help prevent spread and future infections.

Southern blight infection on hosta. Photos: Christa Carignan, UME-HGIC

Magnolia Scale

Brian Dahl and others with MNCPPC found magnolia scale on *Magnolia x loebneri* "Merrill") in the Kensington/Garrett Park area in one of the parks they visited last week. The scale were producing a lot of honeydew on which sooty mold was growing. Crawlers of this scale occur later in the season.

This magnolia is heavily infested with magnolia scale. Photo: Amanda Aparacio, MNCPPC

Heavy magnolia scale infestations can cause plant dieback. Photo: Amanda Aparacio, MNCPPC

Orange-striped Oakworms

Marie Rojas, IPM Scout, found eggs of orange-striped oakworms this week. Most often control of these caterpillars is not necessary. There is one generation per year. Look for beneficial insect activity to help determine if any treatments are necessary.

You can find orange-striped oakworms feeding from July into September. Photo: Marie Rojas, IPM Scout

Oriental Fruit Moth, *Grapholita molesta*, Are Active Now By: Stanton Gill, UME

If your customers are growing peaches, nectarines, apricots, or plums, then they need to take action to prevent damage from the oriental fruit moth. The moth lays eggs on the undersides of leaves near the fruit and the larvae bore into the flesh. The moths are night flyers, so you generally do not see them coming unless you are using a baited pheromone trap like we use at the CMREC lab. In late June and early July, an infested piece of fruit will have a gelatinous ooze form on the outside of the fruit. The game will be over at that point and your customer will have a wormy piece of fruit.

Oriental fruit moths have four to five generations per year in Maryland, with the first and last two generations most numerous. For the first generation, which was back in May, the earliest indication of injury is a dying back of the new growth of twigs in late spring. A first-generation larva enters at a leaf axil near the tip of a shoot and bores down the central core for several inches, causing the terminal to wilt, or "flag."

When gummosis is being produced, the oriental fruit moth infested fruit is not edible. Photo: Stanton Gill, UME

Later generation larvae may enter the fruit near the stem end and make feeding burrows that can extend to the pit or to the core. In peaches, the mature larva exits the fruit from the side, leaving a large gumming hole with much frass. In apples, Oriental fruit moth larvae may feed around, but not in, the core.

We are at flight activity of the 2nd generation right now. Adults are active from around 1100 degree days to 1500 degree days. I use Altacor which has minimal impact on pollinators and other beneficial insects, so it fits an IPM approach nicely. I also switch to Delegate (Spinosad) which also has minimal impact on pollinators and beneficials.

Landscape Roses With Rust

By: David L. Clement and Karen K. Rane, State Specialist and Plant Clinic Director

This year we've been seeing a higher than normal incidence of rose rust, usually caused the fungus *Phragmidium mucronatum*, on all types of roses, including the landscape 'Knockout' rose cultivars. We have had cooler than normal nights that have been conducive for dew formation which seems to favor this disease. This rust disease stays on rose and doesn't need an alternate host to survive. Symptoms include yellow to reddish brown lesions on the upper leaf surfaces and orange rust pustules containing powdery spores on the lower surfaces. Pustules may also develop on rose stems. High disease incidence can lead to general defoliation and less flowering. Mycelial infection of green tissue on young stems may also cause distorted growth. The spore pustules will eventually darken towards late summer with the formation of the overwintering spore phase. These overwintering spores will germinate next spring and cause disease. If winters are mild the fungus may also survive as mycelium inside rose stems and regrow the following spring causing new infections as well.

Management

Plants can tolerate low levels of damage without significant losses. Generally, we have not had to manage this disease in landscapes in the past, however labelled fungicides could be applied to slow disease development. Fungicide treatments would have to be repeated (based on product label instructions) throughout the summer. Summer and dormant pruning of infected shoots and canes as well as removal of fallen leaves will also lessen disease.

Rust infection on a rose in May 2022. Photos: Steve Sullivan

Powdery Mildew

With the sunny days and cool nights, we are seeing powdery mildew on landscape and nursery plants. Marie Rojas, IPM Scout, saw it on *Platanus* 'Bloodgood' and *Magnolia* 'Ann' this week in Montgomery County.

Weather conditions (sunny days, cool nights) have been good for powdery mildew infections. Photo: Marie Rojas, IPM Scout

Gummosis on Trees

Marty Adams, Bartlett Tree Experts, found sap oozing (gummosis) from the trunk of a Norway spruce tree. Gummosis is a sign of other problems such as insect borer infesations, disease infection, or environmental stresses.

Heavy gummosis on a tree is an indicater of other stressors. Photo: Marty Adams, Bartlett Tree Experts

Dogwood Sawfly

Rachel Rhodes, UME-Queen Anne's County, found early instar dogwood sawfly larvae on red twig dogwood in Centreville this week. Later instar dogwood sawfly larvae will eat all but the midrib of the leaf. There is only one generation per year. Control options include Conserve, horticultural oil, and synthetic pyrethroids. Treating sawfly larvae when they are small is the ideal time for treatment.

The arrows point to the clusters of early instar dogwood sawfly larvae. Note the brown spots along the veins which are the damaged areas where the eggs were laid. Photo: Rachel Rhodes, UME-Queen Anne's County

Periodical Cicada – What is Coming in 2024?

By: Stanton Gill, UME

Our next major emergence of the periodical cicadas will start in late April and early May 2024, when two different broods will emerge. The 17-year **Brood** Periodical cicada Brood XIX (19) will emerge in the spring of 2024 in Alabama, Arkansas, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Missouri, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Virginia and part so f Southern Maryland. In Maryland the cicada will be present in parts of St. Mary's and Charles County and parts of Prince George's County. A map showing 2023 reports is available at <u>https://www.cicadamania.com/cicadas/category/genera/magicicada/</u>.

Creative Summer Art With Food and Spiders

By: Stanton Gill

As part of our IPM efforts, we have published several articles about how beneficial spiders are in the landscape. Bill Stocker has taken spiders to a new art level. He created this summer deviled egg display with spiders.

> Deviled eggs and spiders are on the menu at this potluck. Photo: Bill Stocker

Beneficial Control of Aphids

In the Beneficial of the Week Article, Paula Shrewsbury covers more on beneficials for aphid control. Marie Rojas, IPM Scout, found a few lady beetles and wasp parasitoids active this week.

These aphid mummies are signs of activity of wasp parasitoids. Photo: Marie Rojas, IPM Scouts

Various stages and species of lady beetles can be found feeding on aphids. Photo: Marie Rojas, IPM Scout

Beneficial of the Week

By: Paula Shrewsbury

Parasitic wasps attack bark aphids

Often when we see aphids on plants, they are feeding on the phloem sap from the newer foliage. There are also aphids that feed on phloem sap from the bark of branches on trees. For example, in the June 2nd IPM newsletter there was a report of white pine aphid, Cinara strobi, feeding on the woody branches of white pine. A few years ago, we had a report of giant bark aphid, Longistigma caryae, on the woody branches of redbud and another report on London plane tree. These bark feeding aphids tend to be relatively large ($\sim 1/4$ "; 6 mm) for an aphid and, not surprisingly, they produce large amounts of honeydew. See the video by Mike Raupp (UMD) of white pine aphids feeding and their honeydew raining down. Unusual for aphids, giant bark aphid feeding damage, if gone unchecked, can result in significant tree damage such as branch dieback, and in some cases deaths of trees have been reported, including redbud tree death. Last week for the Beneficial article a discussed the suite of natural enemies that provide biological control for aphids. I would like to continue along those lines this week and discuss a parasitic wasp that attacks large, bark feeding aphids.

As you can see from the images of aphid mummies, the giant bark aphids on the redbud sample were attacked by parasitic wasps (Hymenoptera). In general, wasps that parasitize aphids are in the families Braconidae and Aphelinidae, most of which specialize on aphids. Many wasps in these families are koinobiont, which means the host (aphids) continue to develop and grow even after being parasitized by the wasp. Yikes, this sounds like a slow, tortuous death to me. The female adult wasp will insert her ovipositor into the aphid, the wasp deposits an egg in the aphid, the wasp egg hatches and the larva feeds on the insides of the aphids. The aphid body changes color (ex. dark brown or black depending on wasp species), and swells, giving it a bloated appearance. At this point, they are referred to as aphid mummies. The wasp larva matures and pupates inside the aphid, eventually killing the aphid. Once the adult is ready to emerge from the aphid mummy, it chews a circular hole through the aphid's exoskeleton in the topside of the aphid abdomens (see images). The adult wasp emerges and flies off to find a mate or another aphid to parasitize. As with many parasitoids, they are quite small and often go unnoticed, so you should always be watching for other indicators of parasitoid attack - change in size, change in shape, and change in color of the pest insect. This is cover branches of this redbud. Fortuwhat we see with aphid mummies.

An Aphidius female wasp stinging (inserting an egg) into a live aphid. Photo: Peter Bryant, from BugGuide.net

Heavy infestations of bark aphids often nately, this aphid population was heavily parasitized as indicated by the presence of aphid mummies. Photo: M. Medrek, subm. to UME HGIC

The giant bark aphids on the redbud sample had extremely high levels of parasitism, as indicated by the number of aphid mummies. Obviously, this wasp parasitoid was providing biological control and there is no need for other intervention.

Close-up of aphid mummies on the underside of a leaf. Note that some have circular holes where the wasp adults have emerged; the others still have wasps developing inside them. Photo by M.J. Raupp, UMD

Weed of the Week

By: Chuck Schuster, UME-Retired

Oriental Bittersweet

One weed that seems to be thriving with the different weather we are having is Oriental bittersweet. Oriental bittersweet, Celastrus orbiculatus, often called Asiatic bittersweet, is a deciduous woody perennial plant which grows very prolifically in this area. It is being noticed in many landscapes and nurseries this year, and does require attention. A problem of nursery and landscape settings, this fast-growing vine can grow as tall as fifty feet or more in one year, with a stem diameter of up to four inches. The leaves will be alternate, round in shape, (Photo 2) with a finely toothed margin. Damage from this weed can be from breakage of the desired plant as it will grow into the canopy and create either weight or potential storm damage. The spirally habit (photo1) can also choke other desired plants. Oriental bittersweet is very similar to American bittersweet, and can be distinguished by the location of the flowers and fruit. Berry location on the American bittersweet is only at the tips of the vines where with the Oriental bittersweet, the berries occur all along the vines.

Oriental bittersweet is an invasive plant. One

1. Twining growth habit reason for concern is the color and great numbers Photo: Chuck Schuster, UME-Retired of berries produced. As birds are one of the prime

methods of dissemination, a brighter red color is very attractive to the birds and with greater numbers of berries to be found, the potential of spread is much higher. To add insult to this problem, the seeds also seem to have a higher germination percentage than that of American bittersweet.

Control of Oriental bittersweet can be accomplished through either mechanical or chemical means. Cutting near the base can be effective with small plants. As plants mature, the use of a stem application after cutting with the immediate use of triclopyr (Garlon 4) or glyphosate (Roundup and others) at a 25% solution. Use caution not to apply the herbicide to the desired plant material, as thin barked species can be damaged or killed. In open settings, where possible apply triclopyr and glyphosate. If possible mow the site first to create the cut stem. Repeated applications may be necessary. The use of a basal oil and a penetrant may be beneficial. This will increase the effective. Use eye protection when doing stem applications, as some products are salt based and may cause eye damage.

2. Alternate leaf pattern Photo: Chuck Schuster, UME-Retired

Photo 3, Fast growing upright growth Photo: Chuck Schuster, UME

Plant of the Week By: Ginny Rosenkranz

Hydrangea quercifolia or oakleaf hydrangea is a beautiful native hydrangea that grows 6-8 feet tall and wide and is cold tolerant in USDA zones 5-9. These deciduous shrubs thrive in full morning sun to part afternoon shade and grows best in organically rich, moist but well drained soils. Oakleaf hydrangea is named for the dark green leaves that are shaped like the 3-7 lobed oak-like foliage. In late spring to early summer, the 4-petal sterile white flowers and hundreds of tiny fertile flowers fill up an ice cream cone shaped panicle, covering the plants with sparkling stars. The flowers mature to pink then mauve in color. Because the plants bloom on old growth, they should only be pruned after the flowers have finished blooming, but they seldom need pruning. In the autumn, the foliage turns reddish purple before falling to the ground, revealing the lovely exfoliating bark on the branches. Oakleaf hydrangea can be planted as an informal hedge, as an accent plant or bordering a wooded area. The exfoliating bark adds winter interest, making the *Hydrangea quercifolia* a four-season plant of interest. Pests can include deer if the populations are high, aphids and spider mites are occasional visitors, while the foliage is slightly susceptible to leaf blight and powdery mildew.

Oakleaf hydrangea flowers mature to pink then mauve. Photos: Ginny Rosenkranz, UME

Degree Days (as of June 14)

Abingdon (C1620)	936
Annapolis Naval Academy (KNAK)	1063
Baltimore, MD (KBWI)	1115
College Park (KCGS)	1038
Dulles Airport (KIAD)	1048
Ft. Belvoir, VA (KDA)	994
Frederick (KFDK)	967
Gaithersburg (KGAI)	919
Gambrils (F2488, near Bowie)	1014
Greater Cumberland Reg (KCBE)	835
Perry Hall (C0608)	885
Martinsburg, WV (KMRB)	698
Natl Arboretum/Reagan Natl (KDCA)	1297
Salisbury/Ocean City (KSBY)	1054
St. Mary's City (Patuxent NRB KNHK)	1322
Westminster (KDMW)	1109

Important Note: We are using the <u>Online Phenology and Degree-Day Models</u> 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

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 **698 DD** (Martinsburg, WV) to **1322 DD** (St. Mary's City). The <u>Pest Predictive Calendar</u> 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.

Juniper scale – egg hatch / crawler (694 DD) Calico scale – egg hatch / crawler (765 DD) Oak lecanium scale – egg hatch / crawler (789 DD) Rhododendron borer – adult emergence (815 DD) Japanese maple scale – egg hatch / crawler (1st gen) (829 DD) Dogwood borer – adult emergence (830 DD) European elm scale – egg hatch / crawler (831 DD) Cottony maple scale – egg hatch / crawler (872 DD) Winged euonymus scale – egg hatch / crawler (892 DD) European fruit lecanium scale – egg hatch / crawler (904 DD) Cryptomeria scale – egg hatch / crawler (937 DD) Azalea bark scale – egg hatch / crawler (957 DD) Hibiscus sawfly – larva (early instar) (1015 DD) Japanese beetle – adult emergence (1056 DD) Fletcher scale – egg hatch / crawler (1105 DD) Spotted lantern fly – adult flight (1112 DD) Fall webworm – egg hatch (1st gen) (1142 DD) Indian wax scale – egg hatch / crawler (1145 DD) Oriental beetle – adult emergence (1147 DD) Peachtree borer – adult emergence (1181 DD)

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

Conferences: Go to the IPMnet Conference Page for links and details on these programs.

June 20, 2023 Cut Flower Program Location: Castlebridge Farm, Ellicott City, MD

June 28, 2023 (1-3 p.m.) <u>IPM Scouts' Diagnostic Session</u> Location: CMREC, Ellicott City, MD

July 26, 2023 (1 - 3 p.m.) <u>IPM Scouts' Diagnostic Session</u> Location: CMREC, Ellicott City, MD

October 11, 2023 FALCAN Truck and Trailer Seminar Location: Urbana Fire Hall, Urbana, MD

MDA Pesticide Container Recycling Program

Please be advised that the MDA Pesticide Container Recycling Program has been suspended for the 2023 year. Please visit Pesticide Container Recycling Program Update 2023 for further information. If you have any questions please feel free to contact our office. Thank you.

Commercial Ornamental IPM Information <u>extension.umd.edu/ipm</u>

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