UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **August 22, 2025**

In This Issue...

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 sklick@umd.edu

Coordinator Weekly IPM Report:
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Regular Contributors:
Pest and Beneficial Insect Information: Paula Shrewsbury (Extension Specialist) and Nancy Harding, Faculty Research Assistant
Disease Information: David Clement (Extension Specialist) and Ana Fulladolsa (Plant Pathologist and Director, UMD Diagnostic Lab)
Weed of the Week: Kelly Nichols, Nathan Glenn, (UME Extension Educators), and 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)

Upcoming Conferences

The last IPM Scouts' Diagnostic Session this summer will be held next week on Tuesday, August 26, 2025 in the afternoon. If you attend, please bring samples for diagnosis. It is at the research center in Ellicott City.

The Cut Flower Tour on the Eastern Shore will be on September 24, 2025. The day will start at the Wicomico County Extension Office in Salisbury. We will have presentations and lunch before heading out for the tours. Masterpiece Flowers is located just over the border in Worcester County and Wildwood Lavender Farms is only 15 minutes away from the Extension Office.

More Programs: Other programs include the MNLGA Nursery Tour at Raemelton Farm, the Montgomery County Parks/Casey Trees Urban Tree Summit, and the FALCAN Annual Truck and Trailer Safety Seminar.

Go to our Conferences' web page to get details and the links to register for these programs.

Box Tree Moth – What should you do?

By: Paula Shrewsbury

Box tree moth (BTM), *Cydalima perspectalis* (Lepidoptera: Crambidae) detections continue in MD, VA, and WV. In MD, two more sites have been reported in residential yards, one in Big Pool and the other in Clear Spring (still to be officially confirmed but images looked like classic BTM damage), along with the three earlier detections at Fort Frederick State Park, Clear Spring (residential yard), and Hancock (off Rt. 81 at a hotel). All these detections are in Washington County MD. In VA, BTM has been confirmed in Clarke and Louden Counties, and in WV in Berkeley County. BTM has also been confirmed in Kent County DE. Nine states have confirmed BTM populations.

Boxwoods damaged by the invasive box tree moth in a residential landscape in Washington County MD. Photo: Paula Shrewsbury, UMD

If you manage or grow boxwoods, you should be closely monitoring boxwoods for BTM and its damage, especially if you are in Washington County, MD or its neighboring counties.

If you see BTM and/or BTM damage to boxwoods please let us know (pshrewsbury@umd.edu and sklick@umd.edu). Be sure to include the date found, location, and pictures. **MDA should be contacted at ppwm.MDA@MD.gov with the same information and pictures.**

Close up of a boxwood with a heavy infestation of the invasive box tree moth. Note the high number of caterpillars and damage (defoliation, frass, webbing). Photo: Paula Shrewsbury, UMD

General recommendations to date for response to box tree moth are the following, either one or an integration of tactics depending on your situation. Note that BTM is relatively new to North America and there is still a lot to learn about it. Click here for more detailed information on BTM management and chemical control options.

- Do not make preventative applications
- Monitor boxwoods. There are no other caterpillars that are common on boxwoods. If you see defoliation, it is likely BTM. There appears to be some boxwoods that are less susceptible to BTM. Information on resistance is in its early stages.
- If you see it, report it!

Management

- "Cut and spray" program – This may support regrowth of heavily damaged boxwood. Remove / prune out BTM damaged foliage and stems by cutting branches down almost to the ground (6-24"). The tops (cut branches) should be burned or buried.
- If the remaining stems have BTM on them, treat them with chemical control. Closely monitor new growth for the presence of BTM and treat with a chemical if present.

Chemical controls -Treat with a chemical that is labeled for caterpillar control. For example, bio-rational products with the active ingredients (a.i.) *Bacillus thuringiensis* (Bt), Spinosad, azadirachtin, or pyrethrins; or chemicals in a class referred to as pyrethroids with a.i. such as bifenthrin, permethrin, cyfluthrin, lambda-cyhalothrin, and there are others. Other products are also recommended. For a more thorough list of products click here. Be sure products are labeled for caterpillar control and use on outdoor plants.

In addition to defoliation damage mainly by later instar caterpillars, early instar caterpillars damage is more like etching and results in discolored foliage that is tan to brown in color. Photo: Paula Shrewsbury, UMD

Links for detailed information and pictures of BTM life stages and damage:
UME - https://extension.umd.edu/resource/box-tree-moth/
BTM OSU Part 1- https://ohioline.osu.edu/factsheet/ent-0099 (Focus on range and life cycle)
BTM OSU Part 2- https://ohioline.osu.edu/factsheet/ent-0100 (Focus on damage, detection / monitoring)
BTM OSU Part 3- https://ohioline.osu.edu/factsheet/ent-0101 (Focus on management)
https://bugoftheweek.com/ (Box tree moth episode, Aug. 18, 2025)
BTM MDA - https://mda.maryland.gov/plants-pests/Documents/Box%20Tree%20Moth%204x9.pdf
BTM monitoring and trapping - https://www.umass.edu/agriculture-food-environment/landscape/fact-sheets/box-tree-moth-monitoring-trapping

Mimosa Webworm on Honey Locust

By: Paula Shrewsbury

Robert Dallmann, Davey Tree, submitted pictures of a severely defoliated / webbed honey locust (~80% brown leaves). He mentioned that the damage on the tree seemed to happen over a few weeks when we had high heat and the rain stopped. The tree had been attacked by the non-native Mimosa webworm, *Homadaula anisocentra* (Lepidoptera: Galacticidae) which is a web-forming caterpillar that can severely defoliate and web honey locust and mimosa tree foliage in landscapes and nurseries.


A tree that is severely damaged by Mimosa webworm taken in late August 2025. Photo: Robert Dallmann, The Davey Tree Expert Company

Damage. The larvae feed on the foliage causing etching or skeletonization injury and the leaves turn brown and die. Caterpillars web leaflets together and feed within the web where they are protected. The second generation causes the most damage and it is not unusual for a tree to be completely defoliated by early September.

Life cycle. Mimosa webworm has two generations a year, overwinter as pupae in protected places, and the 1st generation adults emerge early to mid-June. First generation caterpillars hatch and are active in June. Second generation caterpillars are most active August to early September. Pupae from second generation caterpillars

overwinter in cocoons in the webs or bark crevices.

Recommendations. At this time, Mimosa webworms should be at the end of their 2nd generation. If you have trees infested with Mimosa webworms, monitor to see if caterpillars are still active or not. Healthy trees can usually withstand a year or two of heavy defoliation. Stressed trees may not hold up so well. Clean up leaf litter in the fall to remove some of the overwintering pupae. Next season, monitor trees in early June for signs of defoliation and webbing – catch the 1st generation and caterpillars early.

A closeup of the terminal of a branch with foliage webbed together by Mimosa webworm.
Photo: Joe Boggs, OSU Extension

For more detailed information go to:
https://extension.psu.edu/mimosa-webworm
https://content.ces.ncsu.edu/mimosa-webworm
https://www.umass.edu/agriculture-food-environment/landscape/publications-resources/insect-mite-guide/homadaula-anisocentra

Mimosa webworm caterpillar.
Photo: Joe Boggs, OSU Extension

Elm Leaf Beetle

By: Suzanne Klick

Elm leaf beetle activity has been increasing over the last 7 to 8 years. Jason M. Hipp, Deeply Rooted Tree Care, found heavy damage on elms in Riverdale. Janet Miller, D.C. Urban Forestry Division, is finding elm leaf beetles and damage on a 'Triumph' elm tree in Washington D.C. this week. Elm leaf beetles also feed on zelkova. This insect overwinters as as an adult in areas such as mulch, leaf litter, and buildings. In the fall, adults can be a nuisance as they try to find overwintering sites within homes and other buildings.

Elm leaf beetles overwinter in the adult stage. Photo: William M. Ciesla, Forest Health Management International, Bugwood.org

It is too late in the season to make treatments. Monitor infested and susceptible plants closely next April for adults laying eggs and feeding by small larvae. You can treat then with a labelled insecticide.

Heavy elm leaf beetle damage. Photo: Janet Miller, D.C. Urban Forestry Division

Second generation elm leaf beetle eggs have been hatching. There are reports of adults as well. Photo; Jason Hipp, Deeply Rooted Tree Care

Hibiscus Flea Beetles Are Active Now

By: Paula Shrewsbury

Andy Driscoll, Montgomery Parks, found Hibiscus flea beetles, possibly *Chaetocnema quadricollis* (Family: Chrysomelidae), feeding on native *Hibiscus moscheutos* on August 19th in Gaithersburg, MD. Interestingly, last year during this same week, Heather Zindash, The Soulful Gardener, reported hibiscus flea beetle feeding on the same host plant. If control is warranted, use a product labeled for flea beetles on ornamentals (ex. pyrethrins / pyrethrum, spinosad, Cyantraniliprole; and others).

Leaf damage from Hibiscus leaf beetle feeding.
Photo: Andrew Driscoll, Montgomery Parks

A close up image of *Chaetocnema quadricollis*, adult flea beetle.
Photo: Mark Richman, iNaturalist, (CC-BY)

Poplar and Willow Borer on *Salix nigra*

By: Paula Shrewsbury

Heather Zindash, The Soulful Gardener, found what looks like chip cocoons in a wound in the trunk of black willow (*Salix nigra*) and pussy willow (*S. discolor*). Heather could find no eggs, larvae or adults in the wound or chip cocoon. Based on the host plants and the presence of chip cocoons, this suggests that the cause of the damage could possibly be the poplar and willow borer (*Cryptorhynchus lapathi*, Coleoptera: Curculionidae), a weevil native to Europe. The adult weevil is small (0.25”), has a rough surface, and is cryptic. The borer can attack a high number of trees in nurseries and newly planted stands of its hosts (willow, poplar, alder, and birch). Adults are most active in the evening and morning, and they feed on green bark found on shoots prior to mating. In MD there is not much information on the life cycle. At the MD Biodiversity Project website, there have been only three reports of this adult beetle and they occurred in July. Oregon State University has a good fact sheet on the biology and life cycle of poplar and willow borer in the Northwest. See this site to get general

information on the insect's biology and inform on what to look for in this region. For example, in the NW "There are two peak egg-laying periods: the first in March and April by overwintering adults; and later in July through October from the newly emerged adults. Adults can live two to three years".

There are several predators, including birds such as woodpeckers, and parasitic wasps that serve as biological controls for the poplar and willow borer.

Adult poplar and willow weevil / borer, *Cryptorhynchus lapathi*.
Photo: Liam Ragan, iNaturalist (CC-BT-NC)

Damage by poplar and willow borer showing the sawdust rich chip cocoon made by the weevil.
Photo: Heather Zindash, The Soulful Gardener

Rabbits

By: Suzanne Klick

Brian Brown, reports that they "are struggling with rabbits browsing on everything from annuals, perennials to Nellie Steven's Hollies". Brian noted that they tried several types of rabbits repellents with little to no success. Repellents and exclusion methods are the options for keeping rabbits away from desired plants.

The UMD Extension Home and Garden Information Center has a fact sheet on the biology and management of Eastern cottontail rabbits.

Eastern cottontail rabbits can cause significant damage in gardens and landscapes.
Photo: Caleb Slemmons, National Ecological Observatory Network, Bugwood.org

Loosestrife Sawfly

Dave Freeman, Oaktree Property Care, found sawfly larvae feeding on *Lysimachia* in Fairfax, VA. This sawfly also feeds on creeping jenny. These plant species are considered invasive in many locations, especially when growing in moist areas.
Control: Sawflies are best controlled when they are young larvae. You can simply pick them off by hand. A forceful spray of water from a hose can also knock off sawflies. Once dislodged, they cannot climb back onto the plant. If control is warranted, Spinosad (Conserve), Cyantraniliprole (Mainspring), and Chlorantraniliprole (Acelepyrn) all work very well on this pest. Remember, sawflies are related to bees and wasps, not moths and butterflies, so Bt will not work as a control option.

Sawfly larvae feeding on loosestrife.
Photo: Dave Freeman, Oaktree Property Care

Ambrosia Beetle Activity on Spruce

By: Paula Shrewsbury

Dave Freeman, Oak Tree Property Care, found frass tubes (a.k.a. toothpicks) from ambrosia beetle activity on golden Norway spruce, *Picea abies* 'Aurea' in Mclean, VA this week. From the pictures, the spruce appeared very heavily infested with ambrosia beetle as indicated by the hundreds of frass tubes. Frass tubes are pushed out when adult beetles bore into the tree. Based on what I see in the image, it may be best to remove the tree (source of future ambrosia beetles) and destroy / burn the wood before new adults emerge.

This is the second ambrosia beetle report in two weeks. Last week they were reported on Crape myrtle. Be sure to **monitor plants for ambrosia beetle activity**. If you catch it early, a protective spray can be applied to the bark of the trees. Please let us know if you see any (include host tree, location, and date) (pshrewsbury@umd.edu and Sklick@umd.edu).

Heavy ambrosia beetle activity as indicated by numerous frass tubes on *Picea abies* 'Aurea' in VA.
Photo: Dave Freeman, Oaktree Property Care

Jorō Spider Observed in Howard County, MD

By: Paula Shrewsbury

On Thursday August 21st, Dave Clement, Maddie Potter, and Miri Talabac (CMREC UME) were at a park in Howard County MD when they came across a large web that was the home of the introduced Jorō spider. Dave was surveying for beech leaf disease (BLD), so he was looking up into the treetops. He found this was also a good way to find Joro spider webs. Fortunately, Jorō spiders are very docile and are not a threat to humans. Interestingly, according to iNaturalist, Howard County is the only place reported to have Jorō spiders in MD.

See Mike Raupp's (UMD) Bug of the Week blog on Jorō spiders for more information.

Jorō spiders in their large web in Howard County MD.
Photo: Madeline Potter and Miri Talabac, UME

Predaceous Insects

A cuckoo was nectaring at flowers. These wasps lay eggs in the nests of other bee and wasp species.
Photo: Dave Freeman, Oaktree Property Care

A hanging thief robber fly is stealing a wasp from a spider web. Quite often, these flies catch their prey in flight.
Photo: Dave Freeman, Oaktree Property Care

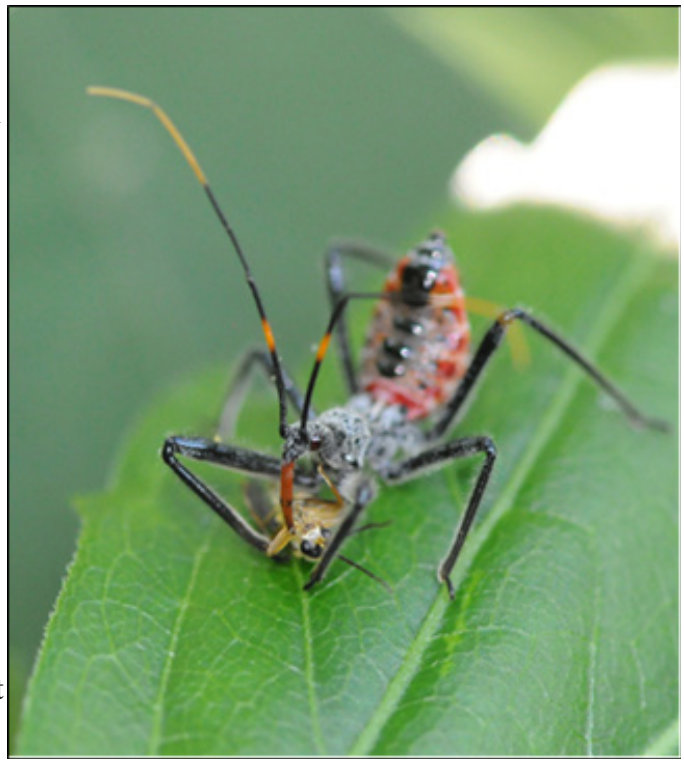
Beneficial of the Week

By: Paula Shrewsbury

Wheel bugs – a voracious predator

A wheel bug egg mass, found in the spring, with newly hatched nymphs dispersing in search of prey.
Photo: Mike Raupp, UMD

There have recently been several reports of one of the more voracious assassin bugs – the wheel bug, *Arilus cristatus* (Hemiptera: Reduviidae). Wheel bug adults lay circular clusters of 10-40 elongate eggs on the bark of trees in the fall, and they stay in that stage until the weather warms in the late spring and prey items become abundant. There are numerous species of assassin bugs, but wheel bugs are one of the more common and noticeable species due in part to their large size. They are large bugs with adults reaching 1- 1.5". The wheel bug gets its common name because of the cog wheel-like structure on the pronotum (section behind the head) of adults. Wheel bug adults and immatures are referred to as generalist predators, which means they feed on a diversity of insects. Wheel bug prey may include caterpillars, plant hoppers, sawfly larvae, aphids, stink bugs, Japanese beetles, lanternflies, and other insects. There are reports of wheel bugs on boxwoods infested with boxtree moth caterpillars! Wheel bugs stalk their prey. The wheel bug approaches its prey very slowly and when it is close, it quickly pounces and grabs the prey with its front raptorial legs and speedily impales the insect with its beak. Both adults and nymphs have a long, dangerous looking proboscis (mouthpart) that they use to suck the life out of their prey – literally (click here to see a great video of a wheel bug stalking a caterpillar, by M. Raupp, UMD). Through its beak the wheel bug injects digestive enzymes into its prey, which liquefy the body tissues making it possible for the predator to suck up its food. Now that we are into mid-late summer you should see numerous adults on the bark of trees and moving onto the stems and foliage. Nymphs and adults are voracious predators and active through most of the growing season, helping to control pest insect populations. With their voracious appetite and knife-like beak, they will help keep some of the plant feeding insects from reaching damaging levels.



A wheel bug nymph feeding on its newly captured lunch.
Photo: Paula Shrewsbury, UMD

If you are fortunate enough to come across a wheel bug, watch it carefully and you may see it "assassinate" its lunch. However, you should not handle them. Although they are too small to eat you, they can inflict some pain when they use the sucking-piercing mouth part to defend themselves! This can include a slight burning sensation and a red bump or reaction in response to the enzymes the bugs inject.

Click the link below for a video of the voracious wheel bug attacking a brown marmorated stink bug. https://www.youtube.com/watch?time_continue=2&v=njrlj8rLKkQ

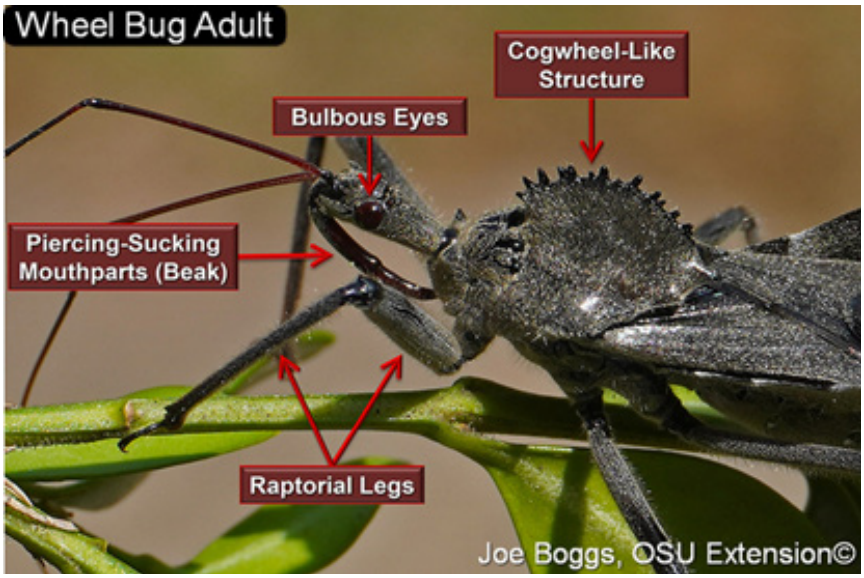


Image designating diagnostic characters of adult wheel bugs. Photo: Joe Boggs, OSU Extension

A predatory wheel bug adult with its large sucking mouth part stuck into a brown marmorated stink bug adult resulting in stink bug death. Photo: Mike Raupp, UMD

Weed of the Week

By: Kelly Nichols

This week's weed has come across my desk a few times lately. Jointhead arthraxon (*Arthraxon hispidus*) is an annual grass found throughout the region in areas such as turf, hay fields, pastures, and ditches. It is also called small carpetgrass. This weed has broad (0.75 inches wide) leaves that are approximately 2.5 inches long (Figure 1). Conspicuous hairs are located around the leaf margin; a thin membranous ligule, sometimes with hairs, is also present. The base of the leaves encircles the stem. Jointhead arthraxon can grow up to 18 inches in height. Its spike of flowers resembles fingers (Figure 2). The root system is fibrous, and the plant will root at nodes (Figure 3).

In turf, control can be accomplished by using products labeled for crabgrass pre-emergent control (e.g. pendimethalin, dithiopyr, prodiamine, oxadiazon). In landscaped areas, post-emergent, non-selective herbicides are effective. Mowing to prevent seed production will reduce plant density in following years.

Jointhead arthraxon can be confused with common or Asiatic dayflower (*Commelina communis*), which also has wide leaf blades and hairs along the leaf; however, it has a blue flower and no ligule (Figure 4).

Figure 1. Jointhead arthraxon leaves, which are wide, encircle the stem, and have hairs along the margin. Photo: Chuck Schuster, Ag Agent Emeritus, UME

Figure 2. Seedheads of jointhead arthraxon. Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Figure 3. Jointhead arthraxon roots. Photo: Chuck Schuster, Ag Agent Emeritus UME

Figure 4. Common or Asiatic dayflower. Photo: Bill Miller, The Azalea Works

Plant of the Week

By: Ginny Rosenkranz

Gaillardia 'Arizona Sun', also known as blanket flower, is a wonderful sun-loving native herbaceous perennial that blooms from May to August, almost as much as an annual with constant flowers to brighten the landscape. They prefer organically rich, moist but well drained soils, and once established they are drought tolerant. These compact plants grow 6-12 inches tall and 12 to 18 inches wide, creating a neat mound with grayish-green, lance-shaped leaves, and are cold hardy in USDA zones of 3-10. The bright 3-inch-wide flowers are created with mahogany red petals that show off a ring of bright yellow edges and surround a dark mahogany red center button. The flowers attract pollinators like butterflies, moths and bees for nectar, and the spent flower heads can provide seeds for the

***Gaillardia* 'Arizona Sun' blooms from May to August. Photo: Ginny Rosenkranz, UME**

goldfinches. These sun-loving, herbaceous perennials are excellent as a bright border and will fit beautifully in cottage, cutting, pollinator or butterfly gardens. Plants are usually not feasted on by deer or rabbits. Plants are susceptible to aster yellows, fungal leaf spot diseases, powdery mildew and if planted in heavy clay soil, root rot. Aphids and leafminer are occasional visitors.

***Gaillardia* 'Arizona Sun' flowers brighten up the landscape with their strong color.**
Photo: Ginny Rosenkranz, UME

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 **2741 DD** (Greater Cumberland) to **3518 DD** (St. Mary's City). The Pest Predictive Calendar tells us when susceptible stages of pest insects are active based on their DD. Therefore, this week you should be monitoring for the following pests. The estimated start degree days of the targeted life stage are in parentheses.

Spotted lanternfly – egg laying **(September)**
Japanese maple scale – egg hatch / crawler (2nd gen) **(2508 DD)**
Fern scale – egg hatch / crawler (2nd gen) **(2813 DD)**
White prunicola scale – egg hatch / crawler (3rd gen) **(3238 DD)**
Banded ash clearwing borer – adult emergence **(3357 DD)**

Tuliptree scale – egg hatch / crawler **(3472 DD)**See the Pest Predictive Calendar for more information on DD and plant phenological indicators (PPI) to help you better monitor and manage these pests.

Degree Days (as of August 20, 2025)

Annapolis Naval Academy (KNAK)	3025
Baltimore, MD (KBWI)	3127
Belcamp (FS836)	2896
College Park (KCGS)	3117
Dulles Airport (KIAD)	3024
Ellicott City	2930
Ft. Belvoir, VA (KDA)	3208
Frederick (KFDK)	2952
Gaithersburg (KGAI)	2990
Greater Cumberland Reg (KCBE)	2741
Martinsburg, WV (KMRB)	2826
Millersville (MD026)	3001
Natl Arboretum/Reagan Natl (KDCA)	3445
Perry Hall (C0608)	2840
Salisbury/Ocean City (KSBY)	2987
St. Mary's City (Patuxent NRB KNHK)	3518
Westminster (KDMW)	3295

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

Conferences

August 26, 2025
IPM Scouts' Diagnostic Session (afternoon)
Location: CMREC, Ellicott City, MD
For more information

September 11, 2025
MNLGA Field Day
Location: Raemelton Farm, Adamstown, MD
For more information

September 17, 2025
Urban Tree Summit
https://urbantreesummit.org/
Montgomery Parks and Casey Trees, present the fourteenth annual Urban Tree Summit. Presentations will focus on efforts to preserve the health and welfare of trees in our urban and suburban landscapes

September 24, 2025
Cut Flower Tour on the Eastern Shore
Location: Wicomico County Extension Office and two cut flower operations
For more information

October 29, 2025
FALCAN Truck and Trailer Safety Seminar
Location: Urbana Fire Hall, Urbana, MD
For more information

Commercial Ornamental IPM Information
http://extension.umd.edu/ipm

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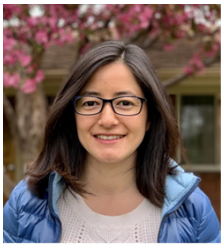

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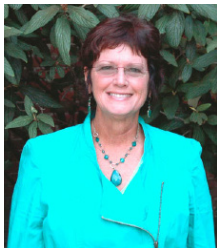

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