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

# **Commercial Horticulture**

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#### Beneficial of the Week:

Insect Zoo at Maryland Day <u>Weed of the Week</u>: Garlic mustar (*Alliaria petiolaata*) <u>Plant of the Week</u>: Wild cherry (*Prunus serotina*)

Conferences/Announcements Pest Predictive Calendar

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)

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Disease Information: Karen Rane (Plant Pathologist), David Clement (Extension Specialist) and Fereshteh Shahoveisi (Turf Pathologist)
Weed of the Week: Chuck Schuster (Retired Extension Educator), Kelly Nichols, Nathan Glenn, and Mark Townsend (UME Extension Educators)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
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# Weather Impact on Fruit Trees

If you have customers with fruit trees in rural areas and trees were in full bloom last weekend, the flowers might have been damaged with the low temperatures. If in city areas and warmer microclimates, flowers and future fruit might be ok. Some peaches in Pennsylvania and some other small fruit that has already formed were also damaged. Remember this weather pattern if you and your customers do not see fruit on trees later in the season.

#### **Cold Damage on Ornamentals**

Ornamental plants, such as this coral honeysuckle in Salisbury, have been damaged by the recent cold temperatures.



Cold damage on coral honeysuckle Photo: Will Lowery, Salisbury University

# April 26, 2024

# **Roseslug Sawflies**

Christa Carignan, UME-HGIC, found rose sawfly larval damage starting on a climbing rose in Rockville on April 18. Heather Zindash, The Soulful Gardener, found active rose slug sawflies on roses in Gaithersburg on April, 19. Heather noted that aphids were also on these plants in high populations. Chris Ward, John B. Ward & Co., found roseslug sawfly larvae causing damage on a red Knockout rose in Bryn Mawr, PA. There are three species of roseslug sawflies that cause problems in this area. The roseslug sawfly has one generation and is active early in the spring. Bristly roseslug sawfly and curled roseslug sawfly have multiple generations and damage roses throughout the spring and summer.

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 treatments are warranted, horticultural oil, Spinosad, Mainspring, and Acelepyrn all work very well on these sawflies.



Early feeding by roseslug sawfly larvae causes window pane damage in foliage. Photo: Christa Carignan, UME-HGIC



This rose is infested with roseslug sawfly larvae as well as aphids. Photo: Heather Zindash, The Soulful Gardener

#### How Many Types of Redbuds Are Out There? By: Stanton Gill



When the thin 'window pane' tissue drops out, there are irregular holes in the leaf. Photo: Chris Ward, John B. Ward & Co.

*Cercis* species are being sold at heart stopping rates in 2024. We are seeing nurseries plant every type of cultivar of redbuds available including ones with yellow foliage, variegated foliage, weeping branches, white flowers, red flowers, pink flowers, lavender flowers. They seem to have it in redbud cultivars and they are selling like crazy. I was visiting Longwood Gardens and they had planted *Cercis* with red blooms and alternating with one

with white blooms. Interesting mix which confused several of their patrons who could not figure out what the white blooming plant was next to the red flowering redbuds.

Hey, redbuds are native to many parts of the world including the USA, so they have that "native" appeal. Redbud species with their striking, year-round beauty have spread to gardens and yards everywhere. They are often the first bloomers in the spring with bright profuse flowers. These floral fireworks give way to the fairytale heart-shaped leaves that bring with them a rainbow of colors. Depending on the variety, the leaves emerge in shades of dark purple and red, turn bright green in the summer, then fade to delectable oranges and yellows in the fall.

These are a great species of trees, but keep in mind they are a relatively short-lived species and very susceptible to canker diseases. So, avoid wounding *Cercis* if you are doing maintenance around these tree species.

#### **Rose Rust**

By: D.L. Clement

Chris Ward, John B. Ward & Co., found rose rust infection on a pink Knockout rose in Haverfod, PA. Chris noted that rust seems to be affecting only pink Knockouts in that area and that infection has been significant for the last two years or so.

There are multiple rust species that infect rose in the fungal genus, *Phragmidium*. These rusts have not been common here in Maryland in the past, however with our recent cool wet weather it appears that the pathogen is present and causing symptoms. This rust completes its life cycle entirely on rose. The bright reddishorange spores appear during wet spring weather and can be seen on the lower leaf surfaces. Reddish-brown lesions occur above the rust infections on the upper leaf surfaces. The diseased leaves often are shed and plant growth may be stunted. The disease usually slows down, or symptoms may disappear during the warmer drier summer weather.



Rust on rose usually slows down or symptoms may disappear during the warmer drier summer weather. Photo: Chris Ward, John B. Ward & Co.

**Management:** Prune and space plants for adequate air circulation to allow quick drying of the foliage. Prune out infections as soon as you detect them to prevent the production and spread of spores throughout the growing season. Collect and remove prunings during autumn clean-up to reduce the number of overwintering spores. Fungicides may be needed for severe infections. Products with the following active ingredients may be used according to label directions and applications should be rotated between FRAC groups; mancozeb, chlorothalonil, myclobutanil, triadimefon, propiconazole, tebuconazole, flutalonil, azoxystrobin, fluxastrobin, trifloxystrobin, copper, sulfur, neem oil, and *Bacillus subtilis*.

## **Elsinoe on Dogwood**

David L. Clement, Extension Specialist

This spring has been very good for dogwood blooms because of the cool and relatively dry weather. However, last Friday's rains, did result in scattered reports of spot anthracnose disease on flowers. Symptoms of spot anthracnose appear first as tiny (less than 1/8" diameter), circular lesions on flower bracts. Symptoms continue as spots with reddish borders on bracts and leaves. This disease is caused by the fungus Elsinoe corni. In seasons when environmental conditions are conducive to disease, spots on bracts and foliage may be numerous, and leaves or bracts become puckered, or distorted around the spots as the leaves expand. Elsinoe corni survives the winter on twigs, in buds, or on infected fruit and leaves that remain on the tree. New

infections occur in early spring. In most years, spot anthracnose causes little damage. However, in very cool, wet springs, symptoms can be severe.

**Management:** In most years control is not necessary. Symptomatic bracts and leaves will not respond to treatments. Spot anthracnose can be controlled preventatively with most general-purpose fungicides including propiconazole, thiophanate methyl, and mancozeb. Spraying should begin as buds begin to open and repeated until the bracts have fallen. Additional sprays may be needed if the season is wet and again in late summer after flower buds have formed.





It is too late to treat for Elsinoe infection when the infection symptoms show up on the bracts and leaves. Photos: David Clement, UME-HGIC

#### **Slug and Snail Control Options**

By: Stanton Gill

If you are looking for a good source for how well various slug and snail control products work I would suggest going to this website and download the IR-4 Publication. I inquired through our national network of entomologists to see if anyone recently published any refereed journal articles on use of low risk materials for slug control. In the attached refereed journal article published with IR-4, Sluggo (Iron Phosphate) provided between 20 and 58% mortality.

Here's the IR4 summary: https://www.ir4project.org/ehc/researchsummary/efficacy/mollusc-efficacy-2024/

#### Lace Bug Egg Hatch on Pieris

By: Stanton Gill

Japanese andromeda (*Pieris japonica*) is extremely susceptible to andromeda lace bug (*Stephanitis takeyai*). This bug is sometimes found on *Leucothoe*. We found lace bug hatch on *Pieris* (andromeda) on April 23 in Brookeville. *Pieris floribunda* (Mountain Andromeda) is highly resistant to lace bug attack and should be utilized in place of *P. japonica* wherever possible. This insect overwinters as an egg imbedded within the leaf tissue. With the warm weather over the last week we are seeing a slightly early hatch out. Several systemic insecticides such as Altus and Mainspring work well on this pest.



If you see stippling damage on the top of pieris leaves, look on the undersides for stages of lace bugs. Photo: Suzanne Klick, UME

# **Crapemyrtle Aphids**

Luke Gustafson, The Davey Tree Expert Company, found crapemyrtle aphids on crape myrtles on properties in Baltimore Cityon April 23. Luke noted, "The aphids were not yet very plentiful, but as the weather continues to warm, I am sure that populations will grow quickly!" We are receiving regular reports of increased beneficial predator activity. Monitor plants closely for beneficals and aphid levels to determine if control measures such as horticultural oil or Endeavor should be used.

#### All stages of crapemyrtle aphids can be present at one time, so these aphids can reproduce and spread quickly. Photo: Luke Gustafson, The Davey Tree Expert Company



# Boxwood Psyllids

We are seeing and receiving reports of heavy boxwood psyllid activity this week. Lucas Fisher, BrightView, found psyllids in Fulton. The nymphs are the stage that produces all of the white, waxy material to protect themselves form desiccation and predators. Damage is cupping and disorted growing tips.



Boxwood psyllid nymphs are very obvious at this time of year as they produce their white waxy material. Photo: Lucas Fisher, BrightView

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# Spotted Lanternfly Update

By Paula Shrewsbury, UMD

# Spotted Lanternfly Update – First egg hatch reported (by Paula Shrewsbury, UMD)

This is the week – we have had reports of spotted lanternfly (SLF) eggs hatching. There were reports of SLF egg hatch in Bryans Road and Waldorf (Charles County, MD) yesterday (April 25<sup>th</sup>) and at Stevenson University in Stevenson (Baltimore County, MD).

Keep your eyes open! This should be the week that more of you see spotted lanternfly eggs hatching. If you look at the degree day (DD) accumulations listed at the end of the newsletter you will see that many locations have reached or are right around 270 DD, the number of degree days that let us know it's time to monitor for SLF egg hatch. If you see SLF eggs hatching, please let Stanton Gill (sgill@ umd.edu) and I (pshrewsbury@umd.edu) know when, where, and on what host tree (if you know it).



A recently hatched spotted lanternfly nymph found in Stevenson. Photo: Phil Dickmyer, St. Timothy's School



This spotted lanternfly nymph JUST emerged from its egg. You can see the top of the egg (operculum) that it popped up providing the opening for it to emerge. Photo: E. M. Russavage, UMD



When first emerging from the egg mass the nymphs are whitish but in a short time the first instar nymphs turn dark in color. Photo by P.M. Shrewsbury, UMD

# Request for Sites with Spotted Lanternfly Egg Masses

By: Stanton Gill

We are looking to test out Metarhizium for control of spotted lanternfly in the egg stage. If you have a site in Central Maryland with multiple egg masses, please contact me at 410-868-9400.

# Update on Caterpillars in Turf

A sample of caterpillars many are finding in turf this spring was sent to Dr, Kelly Hamby in the UMD Department of Entomology. She and several other entomologists are going to try and rear one because they are much better described as adults. They are definitely in the family Noctuidae which contains cutworms, armyworms, and similar species such as darts, groundcats, etc. Dr. Hamby noted that "they do not look like any of the cutworms I have seen nor any that are depicted in any reference material we have."

## Hydrangea Leaftier

Luke Gustafson, The Davey Tree Expert Company, found hydrangea leaftier caterpillars on properties in Baltimore City. The larvae use silk to tie leaves together which can make plants look unsightly. This damage can look similar to plant galls. Manual control options include opening the leaves up to expose the caterpillars to predators, squishing the caterpillars within the tied leaves, or removing the leaf clusters that are infested.

For more photos and details on the life cycle of this insect, see Joe Boggs' OSU article, <u>Hydrangea Leaftier: Oddball Plant</u> <u>Structures.</u>



Check foliage on hydrangea that has damage similar to galls to see if the caterpillar of the hydrangea leaftier is within the leaves that are tied together with silk. Photo: Luke Gustafson, The Davey Tree Expert Company

# **Boxwood Leafminer**

Marie Rojas, IPM Scout, caught boxwood leafminer adutls laying eggs on *Buxus* 'Justin Browers' in Mongtomery County on April 25. Marie noted that many adults were swarming around plants. Here at the research center in Ellicott City, we have just started to see adult emergence. Avid is a translaminar material that can be used when this year's larvae are active next month.



A boxwood leafminer adult that recently emerged. Photo: Marie Rojas, IPM Scout



We are starting to see adult emergence on boxwood plants here at the research center this week. Photo: Sheena O'Donnell, UME

## **Cottony Camellia/Taxus Scale**

Sam Fisher, Bartlett Tree Experts, reports that cottony camellia/Taxus scale is just starting to lay eggs on a client's camellia in Georgetown DC. Over the next few weeks, look for the females to continue producing the white, waxy egg sacs. Crawlers hatch in this area in late May/early June. Cottony camellia/Taxus scale tends to be limited to camellia, *Taxus*, Chinese holly, and jasmine, although it can infest English ivy, euonymus, hydrangea, maple, mulberry, pittosporum, and rhododendron. Wait until crawlers are active to treat for this scale.



Sooty mold is an indicator of activity from insects such as soft scale (left); Note that these cottony Camellia/ Taxus scale adult females are starting to produce white egg sacs (right). Photos: Sam Fisher, Bartlett Tree Experts

# **Pine Bark Adelgid**

Elaine Menegon, Good's Tree and Lawn Care, found active pine bark adelgid in Lebanon Pa this week. This adelgid overwinters as nymphs on the bark of its hosts. Pine bark adelgid has several generations per year. Check the bark and larger branches of pines for fluffy white wax. It often starts at the base of needles. Black wingless adults will be within the wax along with yellow eggs. Trees can generally tolerate relatively high levels of this pest.

Pine bark adelgids are often kept at low populations by a number of different generalist predators (flower fly larvae, lady beetles). Horticultural oil can be applied now or at most times of the year to reduce populations of adelgids. The horticultural oil should help conserve the natural enemies to help prevent adelgid populations from returning to high levels. Wait for egg hatch if you decide to apply a chemical.



Predators such as lady beetles help keep adelgids under control. Photo: Elaine Menegon, Good's Tree and Lawn Care

#### **Ambrosia Beetles**

Marie Rojas, IPM Scout, found ambrosia beetles on April 23 hitting *Ilex opaca* 'Satyr Hill' and 'Miss Helen'. Look for wet areas on tree trunks which indicate ambrosia beetle activity. Marie found adult beetles and frass tubes on the hollies.





Symptoms and signs of ambrosia beetles are poor plant growth, wet areas on tree trunks, frass tubes produced by the beetles, and the beetles in or around the holes. Photos: Marie Rojas, IPM Scout

# **Calico Scale**

Marie Rojas, IPM Scout, found calico scale in Montgomery County this week. Marie noted that they are eggs under covers. Look for crawlers in June at around 765 degree days. Wait until then to apply either Talus or Distance.

# Many Predators Around Scale Populations

Marie Rojas, IPM Scout, reported the following: "Something I'm noticing this spring is a LOT more beneficial insects! I am seeing so many lady beetle adults, larvae, and pupae on trees in all of the nurseries I scout, as well as soldier beetles and lacewing eggs. Hopefully due to them planting habitat for them. Very encouraging to see." We are getting regular reports of benefical insects associated with insect populations, especially aphids and scales. Monitor both pest and benefical insect populations when deciding if other control options are needed.





In the above photos, a mating pair of multi-colored Asian lady beetles and a twice-stabbed lady beetle have plenty of Japanese maple scale for food.

A lady beetle pupa is the photo on the left.

Photos: Marie Rojas, IPM Scout

#### **Beneficial of the Week**

By: Paula Shrewsbury and Mike Raupp

#### Visit the Insect Petting Zoo at MD Day this Saturday April 27th

This week I want to invite you all to visit the award winning <u>Insect Petting Zoo</u> (video by M.J. Raupp, UMD) that is part of <u>MD Day</u> held on the University of Maryland College Park campus this Saturday April 27<sup>th</sup> from 10:00 a.m. to 3:00 p.m. There will be fun and discovery for those of all ages and all interests. The Insect Petting Zoo is in the Plant Sciences Building on the first floor directly across from the Regents Drive parking garage.

This years Petting Zoo will feature an amazing ensemble of arthropods, including natural enemies, pollinators, and others that may be friendly, ferocious, and even creepy. This year's spectacle features insects from around your home and around the world. A visit to the Petting Zoo is sure to excite insect enthusiasts of all ages, and perhaps convert some that aren't so fond of insects. Others come to face their fears by touching and holding Rosie the tarantula, giant lubber grasshoppers Vietnamese walking sticks, Eastern tent caterpillars, blue death feigning beetles, desert millipedes, and many other amazing critters. Children can collect insect stickers and the first 700 visitors may take home a Terrapin lady beetle to release in their garden to help reduce insect pests.

To learn more about Maryland Day and the location of the **Insect Petting Zoo** please click on the following links:

#### Maryland Day: <u>https://marylandday.umd.edu/</u>

Insect Petting Zoo and Discover a Swamp, 10am-3pm: <u>https://marylandday.umd.edu/</u> events?neighborhood=ag-day



Children of all ages will have a great time at the Maryland Day Insect Petting Zoo. Photo by M.J. Raupp, UMD



The ferocious looking whip scorpion does not live up to its name. Photo by M.J. Raupp, UMD



Rosie the Chilean rose hair tarantula. Photo credit Butterfly Pavillion

#### Weed of the Week

By: Chuck Schuster, UME

With soil temperatures having reached the critical 55 °F for the region most are now in weed post emergent control mode. Soil moisture is better than the previous year, but with the winds being experienced in the region, moisture levels vary greatly. Most pre-emergent products received adequate moisture to activate them, which is an improvement over last year.

Garlic mustard is actively growing and getting tall currently with the warmer temperatures. This weed is very aggressive and will take over any open spots in the landscape. Garlic mustard, *Alliaria petiolata*, an invasive weed found throughout much of the East Coast of the United States. Garlic mustard was first introduced from Northeastern Europe in the 1860s in Long Island, New York. Immigrants from Europe used it for food (an herb), medicine, and erosion control. It can be spread by water, insects, wind, animals, or humans. According to the U.S. Forest Service, "Garlic mustard poses a severe threat to native plants and animals in forest communities. Once introduced to an area, garlic mustard out-competes native plants by aggressively monopolizing light, moisture, nutrients, soil, and space." The plant has no natural enemies.

This weed is a cool season biennial that produces a heart-shaped, coarsely toothed leaf which will appear on a stalked stem that will grow to 3.5 feet tall. The leaves give off a garlic odor when crushed. During the winter, the plant will have a green rosette that will remain very close to the ground, yet will be growing when temperatures are above freezing. Flowers are produced with four petals that form a cross.

Each plant, according to research, (Kleinstein, 2001), can produce up to 15,000 seeds that are viable for up to 5 years, (Other references mention 3,000 to 8,000 seeds) that can be dispersed several feet from the plant. This is an invasive weed that likes shaded understory conditions, slightly acidic soils, and soils that are moist. This is a self-pollinating plant in many cases, and will shade out other plant species quickly. Removal by pulling will only be successful if the complete root system is pulled. As a cool season herb, garlic mustard will grow when temperatures exceed freezing. An opportunity to gain some control of this weed can be gained when selective treatment of garlic mustard is done while other plants are dormant, other plants have not yet appeared (spring) or have died for the year (late fall).

Control of garlic mustard in a landscape can be obtained using glyphosate products, even during the winter months when temperatures are at 32 °F or higher. Glyphosate is a non-selective herbicide meaning that it will kill or damage most plants it comes into contact with (including woody plants). Use extreme caution using glyphosate around woody plants, as it will be absorbed through the bark/exposed roots and does cause bark splitting and loss of many desirable plants. While Garlic Mustard will not appear on the label, if the site is labeled then Maryland applicators can use glyphosate. Bentazon (Basagran) may be an acceptable substitute, though less effective on garlic mustard, but with reduced risk to some non-targets particularly annual and









Garlic muster foliage, roots, & flowers. Photos: Chuck Schuster

perennial grasses. Apply at 5 teaspoons per 1-2 gallons of water. Use methylated seed oil (MSO) or crop oil concentrate (COC) with Basagran T/O. Products containing 2,4-D (such as Weed-B-Gone and Crossbow) do not significantly control garlic mustard. This plant species has seed that will remain viable in the soil for up to five years, so control is a long-term commitment. This weed can be found in many settings, so everyone must be aware of it. Early detection and control are important with this weed.

#### Plant of the Week

By: Ginny Rosenkranz

Prunus serotina, also known as wild cherry, wild rum cherry, or black cherry for the color of its bark is a native tree that can reach 50-80 feet tall and 30-60 feet wide with a rounded crown. It thrives in full sun to part shade and prefers to grow in rich, moist, well-drained soils and is cold tolerant from USDA zones 3-9. The wild cherry holds its bright green, elliptical, serrated, deciduous leaves in an alternate fashion on their satiny reddish-brown twigs. Both the stem and the leaves are aromatic, the bark giving of a strong sent of bitter almonds and the leaves the fragrance of cherries. The fragrant 5 petaled white flowers are attached to a slender 3-6 inch pendulous cluster. The flowers mature into dark red berries that eventually turn black in late summer. Although the cherries are edible, they are very bitter and usually used to make jams and to flavor liquors. The leaves, cherry pits, stems and bark are poisonous to all animals. In the autumn the leaves turn from bright green to a gold-yellow before falling to the ground. When in flower the wild cherry provides nectar for pollinators and is a larval host to the coral hairstreak, Eastern tiger swallowtail, the spring azure, viceroy and the red-spotted purple butterfly. Once the cherry fruit is ripe they are feasted on by songbirds, wild turkey, quail, deer and other smaller mammals. Insect pests include aphids, borers, caterpillars, Japanese beetles, leafhoppers, scale, spider mites and tent caterpillars. Diseases can include pollinators.



*Prunus serotina* in flower provides nectar for pollinators. Photo: Ginny Rosenkranz, UME

black knot, die back, fire blight, leaf curl, leaf spot, powdery Photo: Ginny Rosenk mildew and root rot.

# 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 **192 DD** (Martinsburg) to **397 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.

Spiny witchhazel gall aphid – adult/nymph (171 DD) Boxwood psyllid – egg hatch (184 DD) Tea Scale – egg hatch / crawler (1<sup>st</sup> gen) (195 DD) Hemlock woolly adelgid – egg hatch (1<sup>st</sup> gen) (197 DD) Viburnum leaf beetle – first egg hatch (210 DD)

Azalea lace bug – egg hatch (1<sup>st</sup> gen) (214 DD) Birch leafminer – adult emergence (215 DD) Elm leafminer – adult emergence (219 DD) Roseslug sawfly - egg hatch / early instar (230 DD) Honeylocust plant bug – egg hatch (230 DD) Elongate hemlock scale – egg hatch / crawler (1<sup>st</sup> gen) (232 DD) Boxwood leafminer – adult emergence (249 DD) Hawthorn lace bug – first adult activity (259 DD) Spotted lanternfly – egg hatch (270 DD) Bristly roseslug sawfly – larva, early instar (284 DD) Imported willow leaf beetle – adult emergence (290 DD) Hawthorn leafminer – adult emergence (292 DD) Andromeda lace bug – egg hatch (305 DD) Pine needle scale – egg hatch / crawler (307 DD) Cooley spruce gall adelgid – egg hatch (308 DD) Eastern spruce gall adelgid – (308 DD) Spirea aphid – adult / nymph (326 DD) Lilac borer – adult emergence (350 DD) Melon aphid – adult / nymph (351 DD) Spongy moth (formerly gypsy moth) – egg hatch (373 DD) Holly leafminer – adult emergence (375 DD) Hemlock woolly adelgid – egg hatch (2<sup>nd</sup> gen) (411 DD) Basswood lace bug – first adult activity (415 DD) Emerald ash borer – adult emergence (421 DD) Locust leafminer – adult emergence (429 DD) Honeylocust plant bug – egg hatch, early instar (433 DD) Fourlined plant bug – egg hatch, early instar (435 DD) Lesser peachtree borer – adult emergence (1<sup>st</sup> gen) (468 DD) Oak erricoccin scale (oak felt scale) – egg hatch / crawler (469 DD) Maskell scale – egg hatch / crawler (1<sup>st</sup> gen) (470 DD) Oystershell scale – egg hatch /crawler (1<sup>st</sup> gen) (486 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.

#### Degree Days (as of April 24)

Annapolis Naval Academy (KNAK)	272	Baltimore, MD (KBWI)	281
College Park (KCGS)	278	Dulles Airport (KIAD)	325
Ft. Belvoir, VA (KDA)	320	Frederick (KFDK)	279
Gaithersburg (KGAI)	248	Greater Cumberland Reg (KCBE)	251
Martinsburg, WV (KMRB)	192	Millersville (MD026)	272
Natl Arboretum/Reagan Natl (KDCA)	387	Perry Hall (C0608)	227
Salisbury/Ocean City (KSBY)	279	St. Mary's City (Patuxent NRB KNHK)	397
Susquehanna State Park (SSQM2)	240	Westminster (KDMW)	313

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

#### Conferences

May 2, 2024 Pest Walk in Salisbury Location: Salisbury University

May 22, 2024 MAA Pest Walk Location: CMREC, Ellicott City, MD

June 4, 2024 MNLGA Program: Focus on Garden Centers Location: Ladew Gardens, Monkton, MD

#### June 5 and 6, 2024

Biological Control Conference for Greenhouses, Nurseries, and Landscapes Location: Central Maryland Research and Education Center, Ellicott City, MD (likely location change to Westminster)

June 14, 2023 Eastern Shore Pesticide Recertification Conference Location: via Zoom For more information and to register. After you register, you will be emailed the Zoom link.

#### June 20, 2024 UMD Extension and MNLGA Technology Field Day for Nurseries Location: Ruppert Nurseries, Laytonsville, MD

June 28, 2024 Procrastinator's Pesticide Recertification Conference Location: Montgomery County Extension Office, Derwood, MD

#### September 17 and 18, 2024

Cut Flower Program Locations: Central Maryland Research and Education Center, Ellicott City, MD and locations in Howard Co.

**October 9, 2024** MNLGA Retail Day Location: Homestead Gardens, Davidsonville, MD

> Go to the <u>IPMnet Conference Page</u> for links and details on these programs.

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

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