

Commercial Horticulture

April 22, 2022

In This Issue...

- [Cold injury](#)
- [Spotted lanternfly](#)
- [Boxwood leafminer](#)
- [Boxwood mite](#)
- [Spruce spider mite](#)
- [Aphids on birch](#)
- [Ambrosia beetles](#)
- [Eastern tent caterpillars](#)
- [Upcoming programs](#)
- [Euonymus scale](#)
- [Tea scale](#)
- [Nectria fungus on scale](#)
- [Galls on willow oak](#)
- [Tick season](#)
- [Roseslug sawfly](#)
- [Fire blight](#)
- [Plum curculio](#)

[Beneficial of the Week:](#)

Earwigs

[Weed of the Week:](#) Cow
parsnip

[Plant of the Week:](#)

Honeysuckle 'Goldflame'

Degree Days

Pest Predictions

Phenology

Conferences

[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)

Regular Contributors:

Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant

Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)

Weed of the Week: Chuck Schuster (Retired Extension Educator)

Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)

Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)

Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Cold Injury

Marie Rojas, IPM Scout, reported cold injury on the blossoms of *Malus* 'Donald Wyman' on April 21 in Frederick County.



Cold damage on flowers of *Malus* 'Donald Wyman'
Photo: Marie Rojas, IPM Scout



Some areas, like Shepherdstown, WV, had snow with the recent cold weather
Photo: Shawn Walker

Spotted Lanternfly

By: Paula Shrewsbury

In last weeks newsletter, Stanton Gill discussed the degree day (DD) and plant phenological indicators (PPIs) for the beginning of spotted lanternfly (SLF) nymphal activity. Today, I want to focus on tree-of-heaven, *Ailanthus altissima*. *Ailanthus* is one of the most common host plants of SLF that is used by all life stages. *Ailanthus* is also an invasive species and is wide spread. Therefore, this invasive tree is a good tree, although not the only one, to focus monitoring for SLF activity (early nymphal and later life stages). The other aspect of *Ailanthus* is it is an important player in the management of SLF, by its removal and use as a trap tree for SLF. These aspects of SLF management are discussed in the web resources that I provided links for in the April 8, 2022 newsletter.

For these reasons, it is important to be able to accurately identify *Ailanthus* and distinguish it from other look-a-like trees (ex. staghorn sumac, black walnut, hickory). Below are links to websites with excellent resources that will help you in the identification of *Ailanthus*, and also in the development of an *Ailanthus* removal plan if you need to implement this management strategy.

Web resources with relevant spotted lanternfly (SLF) information on tree-of-heaven, Ailanthus altissima, identification and removal:

- Article on tree-of-heaven identification and removal (Penn State Extension)
<https://extension.psu.edu/tree-of-heaven>
- Article on tree-of-heaven identification and look-a-likes; has great images (Cornel Cooperative Extension)
<https://moodle.cce.cornell.edu/mod/page/view.php?id=12563>
- YouTubes on tree-of-heaven identification –
<https://www.youtube.com/watch?v=vIhyFt2wW9U> (Penn State Extension)
- YouTube on tree-of-heaven native look-a-likes (Penn State Extension)
<https://www.youtube.com/watch?v=rm0fwoTdc9I>



Female tree-of-heaven, *Ailanthus altissima*, showing leaves and fruit (samaras).
Photo: Chuck Bargeron, University of Georgia, Bugwood.org

From Stephen Hauss, Delaware Department of Agriculture on April 22, 2022: "Here is the most recent PESTCAST predictor of SLF Nymph Emergence. According to the temperatures we've had, we should have experienced some egg-hatch this week in Kent and Sussex Counties (Delaware), and the more heavily infested areas of New Castle should experience hatch in the next 7 days, so keep your eyes out for those Nymphs!"

Boxwood Leafminer

By: Stanton Gill

Boxwood leafminer is pupating in many locations in Maryland this week, and adults will soon emerge. When emergence occurs, females fly up and down over boxwood plants. Males hang on foliage nearby and will swing up and grab a female to mate with. After mating, the female eggs need to mature, which usually takes 10 – 14 days. Females then lay eggs into newly expanded leaves of boxwood. The larvae hatch within a week. Materials such as Avid, which is translaminar in action, kill the young larvae. As temperatures warm up in summer, the 1st instar larvae go into a summer diapause stage in which they cease to feed.



**Boxwood leafminers are emerging in the area; this one on April 15 in Georgetown
Photo: Nicolas Tardif, Ruppert Companies**

Comments from Dave Shetlar

"The boxwood leafminer is a bit tricky because the window of opportunity is pretty short. My recommendation has been to soil drench with one of the neonics immediately after bloom has finished. This will allow sufficient time for the insecticide to move into the new leaves but avoid any pollinator issues. The first instar larvae only feed for a week or two before they go dormant for the summer. Because of this, there is another opportunity to control them when the larvae resume feeding in late September/early October. An application in mid-September can catch the larvae when they resume feeding in the fall. I believe that Dan Hermes did some studies where they applied imidacloprid in October for the boxwood psyllids and no psyllids emerged the following spring. It might be possible that even an October application might be picked up in sufficient amounts to kill the maturing leafminer larvae.

The following is a list of boxwood with good resistance to boxwood leafminer:

[https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/34892/Boxwood_Leafminer_-_resistant_cultivars_\(Saunders_Bros_Nursery_data\).pdf](https://s3.amazonaws.com/assets.cce.cornell.edu/attachments/34892/Boxwood_Leafminer_-_resistant_cultivars_(Saunders_Bros_Nursery_data).pdf)"

Boxwood Mite Hatch

By: Stanton Gill

We had the first boxwood mite egg hatch in Woodbine on April 16. The damage is usually seen from this mite's activity in June and July, but the damage is being done right now. Boxwood mites, *Eurytetranychus buxi*, overwinter as clear-colored eggs. Just before they hatch, the eggs turn red. They will go through a protonymph then to a deutonymph stage over the next couple of weeks.

Horticultural oil works well on control at this time of year. Control the mites now to prevent the damage showing up later in the summer.

The stippling on these boxwood leaves is damage from boxwood mite feeding; there is also some damage from leafminers present.



UMD-IPMnet

Spruce Spider Mite Hatching

By: Stanton Gill

We observed the hatching of spruce spider mites in Marriottsville on April 18. This mite is found damaging spruce, junipers, Leyland cypress, and hemlocks. Control is best on smaller trees under 20 ft tall. Use horticultural oil on all but blue spruce and firs. It takes out the waxy layer that gives the color on blues spruce and sometimes damages fir foliage. The other options are miticides such as Avid and Sanmite. The mite growth regulator, Hexagon, has provided excellent control of the larval stage of spruce spider mites in our field trials and is very soft on beneficial organisms. Can you obtain effective control on larger trees? It depends on if your sprayer can put a nice fine mist up to the upper branches and obtain good coverage. This coverage is difficult without drift issues.



An adult spruce spider mite and eggs
Photo: Sarah Kenney

Birch – Distorted Leaves

By: Stanton Gill

Emily Mueller detected damage on birch trees in Washington, D.C. this week. Marie Rojas, IPM Scout, reported that spiny witchhazel gall aphids were just out on newly expanding birch leaves on April 20 in Frederick County. We see this damage every year on birch trees. Not to worry - no major damage. The spiny witchhazel gall aphid, *Hamamelistes spinosus*, is so called because it causes spiny galls on witchhazel. It is sometimes called the river birch aphid because it is most often noticed on river birch on which it causes bumpy ridges on the leaves. The overwintering eggs are laid in June and July on witchhazel.



Spiny witchhazel gall aphid infesting birch; upperside of leaf (left) shows puckering of foliage and on the underside (right) of the leaf are the aphids feeding
Photos: Emily Mueller

Ambrosia Beetles

Marie Rojas, IPM Scout, found fourteen *Xylosandrus germanus* ambrosia beetles in a trap in Montgomery County on April 20. Here at the Central Maryland Research and Education Center in Ellicott City, there were six *X. germanus* ambrosia beetles in the trap on April 21. If not already done, now is the time to apply protective sprays, which last 3 - 4 weeks.

Eastern Tent Caterpillars

Jason Hipp, Deeply Rooted Tree Care, found small tents of eastern tent caterpillars in New Windsor on April 15. Several weeks ago, we had a report of caterpillars on the Eastern Shore that were much farther along in their development. Overall in the state, we are seeing lower populations of eastern tent caterpillars.

Control: Mechanical control works well. Reach into the tent, tear it open, pull out the caterpillars, and toss them in a bag and dispose of them. If necessary, you can also spray foliage with Bt or Conserve which gives good control with minimal impact on beneficials.

Look for the tents of eastern tent caterpillars in the crotch angles of trees
Photo: Jason Hipp, Deeply Rooted Tree Care



Two Important Dates Coming Up

By: Stanton Gill

This winter, we have been developing part two of a Biological Control conference for the commercial horticulture industry. We held part one in December of 2021 and **part two will be June 30, 2022**. It will be conducted at the Maritime Institute in Linthicum Heights, MD (near BWI airport). We are working closely with MNLGA in setting up all of the logistics, and they will announce how to sign up within the next couple of weeks. We are bringing in speakers from the mid-West, Northeast, and the Southeast to cover what is the latest in practical biological control you can use in your IPM program. On Day Two – July 1st, we will have an on-site session on using steam to control weeds in a nursery. This will be at Emory Knoll Nursery in Street, MD from 9:00 a.m to 10:30. Mark you calendar for this upcoming event.

The second event coming up, May 17, 2022, will be the Hands-on Diagnostic Session for Arborists and Landscapers to be held at Brookside Gardens, in Wheaton, MD. This program being organized by the Maryland Arborist Association and registration will be available at http://www.mdarborist.com/calendar_day.asp?date=5/17/2022&event=342.

David Clement, Karen Rane, Andrew Ristvey, Phil Normandy, and I will be working with each of the participants in hands on diagnostics of plant health. Phil Normandy will share his expertise on the best disease and insect resistant specimen trees and small plants that can be used in an IPM program.

Euonymus Scale

By: Stanton Gill

Here is one I have not seen a lot out of the last couple of years. Emily Mueller, Capitol Grounds, sent in a photo of an euonymus shrub heavily infested with euonymus scale. There are fewer euonymus being planted in recent years, so I have not seen many plants infested with euonymus scale over the last decade. This armored scale can build up to ridiculous levels on euonymus plants. What many people do not seem to be aware of is that this armored scale can also infest boxwood and pachysandra.

Euonymus scale has two generations per year. Eggs are protected under female scales and hatch in early May to early June. The immature stages of the insect are called nymphs and an early mobile nymph stage is called the crawler stage. Nymphs are active over a period of a few weeks and develop into adults after four to five weeks. A second generation of scales is produced in late July and August. This second generation matures, and the adults overwinter. In very warm falls, I have seen a partial 3rd generation in October to early November if the fall weather remains mild.

For heavily infested plants, I would prune the plant almost to the ground and remove old infested branches. Treat the newly emerging foliage with Distance or Talus at the crawler stages. The euonymus grows so rapidly it will quickly flush out new growth.

If you find an armored scale on either of these plants, send in a sample to me at CMEC, 11975 Homewood Road, Ellicott City, MD 21042.



**Euonymus scale has two generations per year.
Photo: Emily Mueller, Capitol Grounds**



**Heavily pruning euonymus plants and removing infested branches is a good control measure for heavily infested plants.
Photo:Emily Mueller, Capitol Grounds**

Tea Scale

By: Stanton Gill

Sam Fisher, Bartlett Tree Experts, found tea scale on a client's camellia in DC. Sam noted that it is the first time he has seen this scale in this area. Yes, this scale is becoming more and more common. It can be found on camellia and Chinese holly. We had samples from Bethesda and Chevy Chase on both species of plant.

We are monitoring for crawler of this scale, so please let us know when you see crawlers. If you are unsure of the stage, send a sample to us at 11975 Homewood Road, Ellicott City, MD 21042.



A tea scale infestation on holly

Nectria on Scale

Steve Dubik, UME-Montgomery County, found an interesting fungus that seemed to be growing in association with some obscure scale. It is something that he and Marie Rojas, IPM Scout, found before. Paula Shrewsbury, UME, discussed this entomopathogenic fungus called nectria in the [October 22, 2021 IPM Report](#).



Nectria (orange) is an entomopathogenic fungus found infecting armored scale. There is also a twice-stabbed lady beetle in this photo that feeds on scale insects. Photo: Marie Rojas, IPM Scout

Gall on Willow Oak

Marie Rojas, IPM Scout, found beautiful stem gall on willow oak, *Quercus phellos*, in Frederick County. It is one of the many galls found on oaks.

A gall found on willow oak
Photo: Marie Rojas, IPM Scout



It is Tick Season - Be Aware

By: Stanton Gill

With the nice weather, everyone is heading outdoors. beware if you are walking on edges of woods that deer ticks are on plants at this time of year. They do not fly or leap, but if they are on a plant that you brush against, they can move onto your body. I suggest having either repellent treated outerwear or use materials such as Deet.

In Maine, the Maine Centers for Disease Control just reported *Ixodes* species of ticks associated with Powassan disease, which is caused by a virus spread by ticks, that killed a Maine person. This disease has not been reported in Maryland, but still you want to protect yourself from deer ticks (also known as black legged ticks). Powassan virus is a flavivirus, part of the same family as dengue and yellow fever. It causes encephalitis (inflammation of the brain) as well as a variety of less serious symptoms. Most cases come from the places where the carrier ticks are common – wooded areas around the Great Lakes region of North America and the US North East. With six tick species, mostly members of the *Ixodes* genus, able to spread the disease the potential for rapid growth is there. Fortunately, some of these seldom bite humans, preferring groundhogs and squirrels, so most cases of Powassan are from *I. scapularis*, also known as the blacklegged or deer tick.

As with other tickborne diseases, people may not even notice they have been bitten at the time, and symptoms take time to appear. In Powassan's case, it usually takes a week up to a month later. Not everyone infected gets sick, and as we know from other viruses, the numbers of asymptomatic infections are probably dramatically undercounted. The Maine DHHS lists symptoms as: “Fever, headache, vomiting, weakness, confusion, seizures, or memory loss.” More rarely, but more seriously, there are cases of brain or spinal cord inflammation, which can lead to death such as in this case.

Roseslug Sawfly

Nicolas Tardif, Ruppert Companies, found one of the species of roseslug sawfly active in NW D.C. on April 19. The two species in this area with multiple generations per season are bristly roseslug sawfly and curled roseslug sawfly. They can be found in high numbers and cause extensive damage. If control is warranted, horticultural oil, Spinosad, Mainspring, and Acelepyrn all work very well on this pest.

Feeding of early roseslug sawfly instar larvae causes leaf etching on the lower leaf surface where the later instar larvae feed between the main veins, producing skeletization of the leaves.

Photo: Nicolas Tardif, Ruppert Companies



Fire Blight

The temperatures are warming up and your customers' apple and Amelanchier trees are coming into to bloom. Kari Peter, Penn State, provides informaton on how to manage fire blight (and apple scab) in her [April 22, 2022 Disease Update](#).

Plum Curculio

In our monitoring traps, we are still finding plum curculio in Westminster. The best time to treat is at petal drop on apples, pears, and plums.

Beneficial of the Week

By: Paula Shrewsbury

Earwigs: Good, bad, or a little of both?

There are many “urban legends” out there including the one that earwigs crawl into your ears at night, and then proceed to the brain where they lay their eggs and the nymphs feed on your brain. Sounds like a great idea for a sci-fi movie! However, fear not... those of you who have been sleeping with earplugs in your ears, can now stop. Earwigs do not crawl into people’s ear or eat their brains. Interestingly, this myth has been around for a long time and is first referenced back in the year 1000. In looking up the etymology of earwig, it comes from the old English terms *ēare* which means “ear” and *wicga* means “insect” or “beetle”.

Earwigs belong to the order Dermaptera and there are about 2000 species which occur in most parts of the world. There are 22 known species of earwigs that occur in the U.S. and about one half of those have been introduced (non-native species) accidentally. The most common species we come across in our gardens, landscapes and nurseries (and sometimes as home invaders) in our region is the European earwig (*Forficula auricularia*) in the family *Forficulidae*. Earwigs have an elongate shape (~0.5 – 0.75” long) and a somewhat flattened bodied (good for getting into cracks and crevices). They are dark brown in color and have chewing mouthparts. Earwigs are sometimes called pincer bugs because their most characteristic feature is a pair of cerci at the tip of their abdomen which look like forceps or pincers. Male earwigs have curved pincers, while females have straight ones. These pincers are used for defense and to capture prey, and in some species to assist in copulation. If mishandled, the earwig can give humans a

slight pinch. Earwigs will also give off a nasty smelling liquid when they feel threatened. They are pretty well defended. The forewings are thick and somewhat short, and the hind membranous wings are tucked under the forewings. Although earwigs are capable of flight, they seldom are seen flying.

Earwigs are nocturnal and prefer dark, moist, tight places. They are often found in damp mulch, plant debris, and under logs or bark. Their populations tend to increase during warm, humid periods. There is one generation per year, eggs are laid in the soil, and there are 5 nymphal instars. Nymphs look similar to adults only smaller, and they are sometimes confused with termites. One of the interesting aspects of earwig biology is that the females provide maternal care (see image). This behavior is somewhat rare in insects that are not social like ants, bees, termites, etc. Earwig mom’s make a small nest (hole or pocket of space) in the soil, usually under a log, rock, or mulch, where she lays approximately 20 - 80 eggs. She then keeps her eggs warm, defends them



**A European earwig showing characteristic elongate, flat body shape and cerci (pincers).
Photo: J. Berger, Bugwood.org**



**A European earwig mom guards her eggs in the nest she made in the soil.
From Entomology Today, photo by Tom Oates/Wikimedia Commons**

against potential predators, and grooms them to remove fungal spores. Once the eggs hatch the female will feed her young by regurgitating her food and continue to protect the nymphs until they molt to second instars, at which point she no longer cares for them. An interesting YouTube showing this can be found at: <https://www.youtube.com/watch?v=z-7z9ZGcl8A>.

Are earwigs beneficial? Yes, they are beneficial, but sometimes they feed on plants and cause some defoliation. Earwigs are predators, scavengers and omnivores and consume a wide variety of living and dead material. So, they recycle organic matter, eat plant material, and provide biological control by eating other insects and mites. They feed on mites, aphids, and other insects and their eggs, spiders, sowbugs, and snails. It is not uncommon to see earwigs feeding on the tender new foliage and flower heads (see image) of marigolds, zinnias, and dahlias, in addition to vegetable plants and ripe fruits. Unless populations are extremely abundant, this feeding damage usually does not warrant control. If populations are high and damaging the best way to reduce earwig populations is to remove compost piles and decaying vegetation from the area. Earwig traps can also be set out in the garden or landscape. If you search the internet for earwig traps, you will find guidelines for several types of traps or other mechanical measures to catch earwigs and reduce damage (ex. *How to trap Earwigs* by Utah State University Extension at <https://youtu.be/tlgpfCT0wYo>). Placing traps out just before night is optimal since they are nocturnal. In general, the predatory and beneficial habits of earwigs offset the usually small amount of plant damage they cause.



Earwigs are omnivorous. In addition to feeding on other insects and organic matter, they will feed on flowers such as this cosmos.

Photo from Royal Horticultural Society, Entomology

Weed of the Week: Cow Parsnip

By: Chuck Schuster

Cow parsnip is now appearing in many areas. With soils warming slightly, many weeds are showing themselves. Cow parsnip, *Heracleum maximum*, is a native plant to North America. It is also called Indian celery or Indian rhubarb and is a member of the carrot family. This plant is an herbaceous biennial in most settings, or sometimes may extend for an additional year and be somewhat of a perennial. During the first year of growth, the plant has a basal rosette. Growing very close to the ground, it can be difficult to identify without careful observation. Following the first year of growth, the plant forms an upright stalk that can grow to heights of seven feet. This stem is round, hollow and has vertical ridges running up the stalk. It is light green in color and has have light colored hairs. The stem has alternate leaves on the lower portion that will have three leaflets per petiole. The leaflets are four to twelve inches in length, with three to five lobes. The leaflets are ovate in general shape. Petiole bases will be partially enclosed with a hairy sheath. These sheaths are light green to purple in color and covered with hairs. Leaves on the upper portion of the stalk are simple and coarsely toothed. They will be up to four inches in length with petioles up to two inches in length. The flowers of cow parsnip are a compound umbel up to eight inches across at the top of the stalk. Other compound umbels can be produced from the axils of upper leaves on long flowering stalks called peduncles. These secondary flower umbels are up to 6" across. This plant is a prolific seed producer, with the seeds tan to brown in color, flattened with the margins forming wings which help with seed distribution. Cow parsnips have a taproot. Be cautious with this plant as the stems and leaves contain furocoumarins, which can lead to rashes or blister-like burns and change the pigment of skin similar to giant hogweed. It has been used for medicinal purposes.



Various stages of cow parsnip
Photos: Lane Heimer, MDA

Control of this weed starts with prevention. Do not allow it to produce seed if at all possible. During the first year of growth, it can be suppressed and greatly limited with organic products including Prizefighter, and Burnout. Preventing regrowth by scouting and reapplication of products can lead to elimination. If not controlled the first year, it will need greater attention. Cow parsnip is easily controlled with glyphosate based products, or triclopyr (Garlon).

Plant of the Week: Virginia bluebells

By: Ginny Rosenkranz

Lonicera x heckrottii or 'Goldflame' Honeysuckle is a wonderful mix of *Lonicera sempervirens* (trumpet honeysuckle) and *L. americana* (American woodbine), both native honeysuckles. *L. Americana* has a lovely clove scent with flowers that open white then mature to creamy yellow and flushes of pink, red or purple, while *L. sempervirens* flowers are thin, long bright scarlet tubes that open to show off their bright yellow throats. 'Goldflame' honeysuckle has inherited the lovely clove fragrance with bright 2-inch long tubular flowers in shades of pink that open to show off creamy yellow throats. The top 4 lobes and the single bottom lobe are outlined with carmine pink. The buds are bright carmine and are arranged at the tips of each stem in a whorled pattern, creating a lovely bouquet of pink and cream flowers. The foliage emerges in the early spring with blue-green oval leaves joined together on the reddish stems. The flowers begin to bloom in early April and will continue to bloom on new growth throughout the summer until frost. Hardy in USDA zones 5-9; 'Goldflame' thrives in full sun to partial shade and moist well-drained soils. Like all vines, 'Goldflame' needs something to climb on as it growing 10-15 feet tall and 3-6 feet wide and can look stunning on fences, pergolas, trellises, and walls. It can also form a dense shrub if trimmed each spring. Some of the cultivars include 'Summer King', Mardi Grass™ and Pink Lemonade™. Plants are said to be deer resistant and mostly pest free, but maintaining good air circulation can help control powdery mildew.



Honeysuckle 'Goldflame' begins to bloom in early April and continues to bloom on new growth throughout the summer until frost.

Photo: Ginny Rosenkranz, UME

Degree Days (as of April 20)

| | |
|-------------------------------------|-----|
| Aberdeen (KAPG) | 122 |
| Annapolis Naval Academy (KNAK) | 197 |
| Baltimore, MD (KBWI) | 221 |
| College Park (KCGS) | 182 |
| Dulles Airport (KIAD) | 209 |
| Ft. Belvoir, VA (KDA) | 244 |
| Frederick (KFDK) | 149 |
| Gaithersburg (KGAI) | 168 |
| Gambrils (F2488, near Bowie) | 194 |
| Greater Cumberland Reg (KCBE) | 136 |
| Martinsburg, WV (KMRB) | 140 |
| Natl Arboretum/Reagan Natl (KDCA) | 298 |
| Salisbury/Ocean City (KSBY) | 291 |
| St. Mary's City (Patuxent NRB KNHK) | 324 |
| Westminster (KDMW) | 207 |

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 calculator Thresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start: Jan 1

Conferences

Links for more information and to register will be provided when available.

May 17, 2022

[MAA and UMD Extension Pest Walk](#)

Location: Brookside Gardens, Wheaton, MD

June 10, 2022

Montgomery County Annual Procrastinator's Conference

The 27th Annual Procrastinator's Pesticide and Urban Nutrient Management Conference will be held on Friday, June 10. This in person meeting will take place at the Montgomery County Extension Office in Derwood.

Registration information will be posted on the IPMnet Conference webpage once details are finalized.

June 17, 2022 (Virtual)

Contact: Ginny Rosenkranz, rosenkranz@umd.edu

[Schedule and Registration](#)

June 24, 2022 (Virtual)

Turf Program

Contact: Mark Carroll

June 30, 2022

Greenhouse Biological Control Conference

Location: Maritime Institute, Linthicum Heights, MD

July 28, August 4, and August 11, 2022

Drone Training Program

Commercial Ornamental IPM Information
extension.umd.edu/ipm

CONTRIBUTORS:



Stanton Gill
Extension Specialist
sgill@umd.edu
410-868-9400 (cell)



Paula Shrewsbury
Extension Specialist
pshrewsb@umd.edu



Karen Rane
Plant Pathologist
rane@umd.edu



Chuck Schuster
Retired, Extension Educator
cfs@umd.edu



David Clement
Plant Pathologist
clement@umd.edu



Andrew Ristvey
Extension Specialist
aristvey@umd.edu



Ginny Rosenkranz
Extension Educator
rosnkrnz@umd.edu



Nancy Harding
Faculty Research
Assistant

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

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

The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by University of Maryland Extension is implied.

University programs, activities, and facilities are available to all without regard to race, color, sex, gender identity or expression, sexual orientation, marital status, age, national origin, political affiliation, physical or mental disability, religion, protected veteran status, genetic information, personal appearance, or any other legally protected class.