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Beneficial of the Week:

Millipedes

Weed of the Week:

Cogongrass (*Imperata cylindrica*)

Plant of the Week: Amsonia

'Blue Ice'

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

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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), Kelly Nichols, Nathan Glenn, and Mark Townsend (UME Extension Educators)

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

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

Biological Control Conference in June 2024

By: Stanton Gill

We released the announcement this week that the two-day Biological Control conference for the commercial horticulture industry has been set for June 5 and 6, 2024. Originally, we had planned to hold this conference in our NEW Central Maryland Research and Education building in Clarksville with our brand-new Entomology and Pathology Lab. Unfortunately, there are building issues that still need to be addressed.

Instead, we will be at Carroll Community College in Westminster, Maryland. The University of Maryland Extension is working closely with Maryland Nursery, Landscape, and Greenhouse Association (MNLGA) and University of Delaware Extension in conducting this 2-day event. We are bringing in experts from Canada and across the United States to share their knowledge in practical biological control in nurseries, greenhouses and landscapes.

We are very excited about this conference and we have been planning this event for over a year. The lecture day will be limited to the first 128 people to sign up. The same lab session will be offered on the first day – once in the morning and once in the afternoon. Each lab is limited to 30 people. We look forward to seeing you at this event.

Four-lined Plant Bug

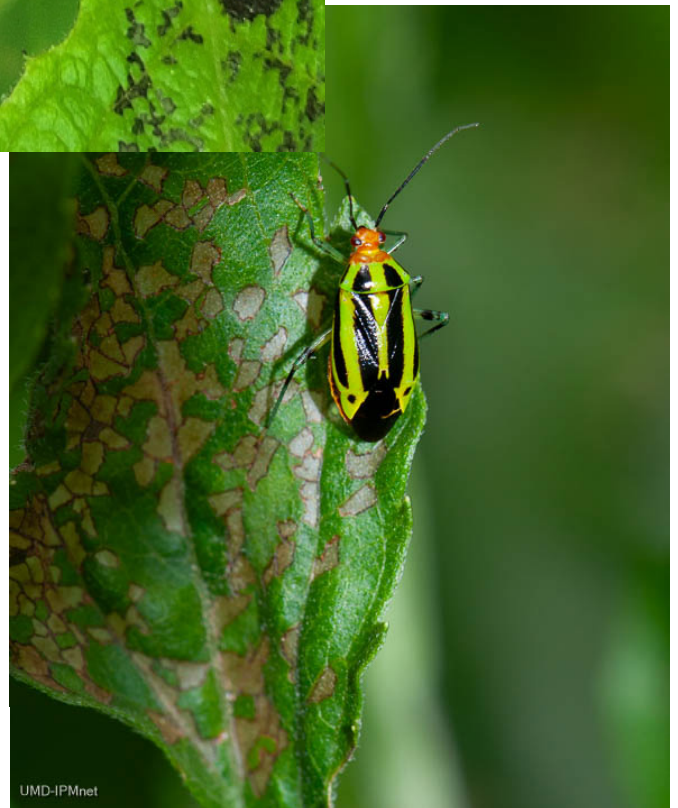
Marie Rojas, IPM Scout, found four-lined plant bugs feeding on perennials last weekend. They feed on about 250 species of plants. Look for them on a variety of herbaceous plants including chrysanthemum, liatris and shasta daisy, mint, basil, azalea, dogwood, forsythia, viburnum, amur maple, sumac, zinnia, marigold, currant, gooseberry, and pepper.

As they feed, four-lined plant bugs inject a toxin into the plant tissue. Their feeding produces dark, round, sunken spots, about 1/16 to 1/8 inch wide. After several weeks, the damaged tissue can drop out, leaving small holes. Feeding on new growth can cause wilting. Four-lined plant damage may be confused with damage from leaf spot diseases. Four-lined plant bug damage creates spots that are similar in size and shape. Fungal and bacterial diseases cause spots that are of different sizes, and have discolored outer margins. There is only one generation per year that occurs early in the season. New growth will cover up the damaged foliage. Usually, there is no need to treat.



Damage from four-lined plant bugs and a nymph on foliage.

Photos: Marie Rojas, IPM Scout



An adult four-lined plant bug and the windowpane damage from the insect feeding.

Photo: Suzanne Klick, UME

What Can We Expect This Summer?

By: Stanton Gill

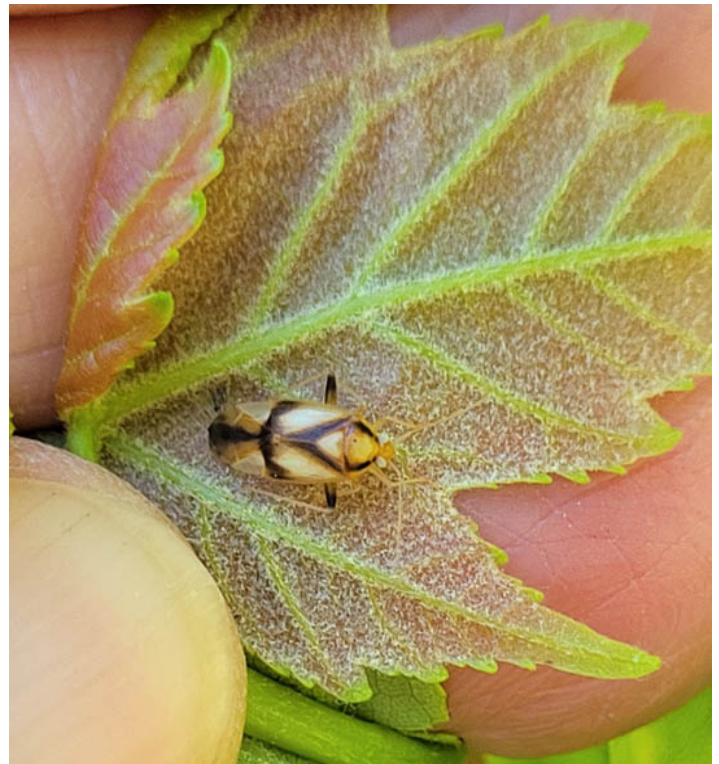
NOAA is reporting that worldwide we can expect temperatures to beat the 2023 season by 1 – 1.5 °F increase in average summer temperatures. With global warming, USDA has revised its hardiness zone map.

The USDA's gardening zones shifted. This map shows you what's changed in vivid detail

<https://apps.npr.org/plant-hardiness-garden-map/?name=Eldorado&state=IL&lat=37.811726&lng=-88.441578>

Plant Bugs on Maples

Marie Rojas, IPM Scout, is finding plant bugs (*Neolygus vitticollis*) feeding on the undersides of red maple leaves in a nursery in Montgomery County. Marie has been finding this bug since 2021. We finally identified it last year, Marie noted that she is only seeing this plant bug at one of her scouting locations. This plant bug can cause significant damage early in the season. There is only one generation per year.



The damage and adult plant bug (*Neolygus vitticollis*) on a red maple leaf.

Photos: Marie Rojas, IPM Scout

Rain, Rain, Rain = Diseases

By: Stanton Gill

It was bright and sunny on Thursday, but other than one or two days of sunny weather, it has been rain city for the last two weeks. It is perfect weather conditions for plant pathologists and their disease buddies. We are seeing a lot of pressure from rust disease, brown rot on cherry, plums and peaches, and botrytis on flowering plants. Protectant standard fungicides and bio-fungicides only work when applied on a preventative basis and adding a spreader/sticker such as Nu-film, helps maintain these protectant sprays with the regular rainfall.

Maple Leaf Petiole Borer

Marie Rojas, IPM Scout, found the maple leaf petiole borer just starting to bore into red maple petiole bases and cause wilting. The damage usually occurs in the spring on new tip growth on 1 to 2 year old maples. Look for flagging tips and prune out damaged branches.



At this time of year when you see flagging on a maple growing tip, you are likely to find the maple petiole borer larva within the stem.

Photo: Marie Rojas, IPM Scout

Dropping of Foliage on Callery (aka Bradford) Pears

By: Stanton Gill and David Clement

Paul Wolfe, Integrated Plant Care, is reporting a large number of callery pears are dropping foliage in the areas of Bethesda and Rockville. Is anyone else seeing this occurring in your area? If so, please send photos to me at sgill@umd.edu.



Are you seeing leaf drop on callery pears this spring?

Photo: Ellen Wolfe

Azalea Leaf Gall

By: Stanton Gill

Christy Little, A Little Farm and Nursery, sent in pictures of a sample that one of her customers brought into her garden center. It is caused by a fungus called *Exobasidium vaccini*. The fungus overwinters within the infected plant. In the late spring and early summer, a whitish coating appears on the swollen plant tissue. This coating is composed of many microscopic fungal structures which produce spores capable of infecting more plants during moist weather. This disease is not usually a serious problem unless wet conditions prevail for long periods of time.



Azalea leaf gall

Photo: Christy Little, A Little Farm and Nursery

Spotted Lanternfly Hatching

By: Stanton Gill

Last week, Paula Shrewsbury asked if you find hatching spotted lanternfly to send us an email listing the location and hatching time and place. The following is what we have so far.

May12 – hatching SLF eggs in Chestertown, MD report by Sallee Hearne, Winged Horse Land Management

From Ronald Muir, West Virginia:

I had a lanternfly nymph in my back step Saturday here in Martinsburg – thought it was a tick until I looked closer. This area is near my red maple which had a bunch of adults on it last year and am sure there are some egg masses up in the crown that I could not get.

Here at the research center in Ellicott City: We saw our first nymph on May 8th. We have only had a few sightings on our landscape plants.

First instar nymphs on oakleaf hydrangea in Chestertown.
Photo: Sallee Hearne, Winged Horse Land Management



Powdery Mildew

Marie Rojas, IPM Scout, is reporting that she is starting to see powdery mildew on *Cornus florida*. With the recent, steady, high humidity periods, powdery mildew infection will occur.

Control begins with the selection of plants resistant to powdery mildew. Place susceptible plants where there is adequate sunlight and good air circulation to reduce humidity levels. Allow proper plant spacing for the same reasons. Pruning (thinning out plants) for better air circulation also may help. Registered fungicides may be needed if disease is severe. Check the label registration for organic products such as horticultural oil formulations for powdery mildew control listing.



Powdery mildew infection is prevalent during periods of high humidity.

Photo: Marie Rojas, IPM Scout

Lace Bugs

Various species of lace bugs are active now. Lace bugs have multiple, overlapping generations each season so look for all stages on the undersides of foliage. Damage is yellow stippling on the top of leaves. If damage is heavy enough, leaves can be almost all white to yellow.

Several good systemic insecticides will control this first generation of lace bug. Altus is a systemic that will work on azalea lace bug. Endeavor is another control option.



An azalea lace bug adult and damage on foliage.
Photo: David Freeman, Oaktree Property Care

Thinning Fruit

By: Stanton Gill

If you maintain fruit plantings or small orchards for your customers, now is the time to thin apples, pears, and plums. For apple and pear clusters, leave one or two fruit and remove the rest of the fruit cluster. For plums, thin so there is a fist distance between fruit. It is the same for peaches as plums. We have not started thinning paw paw yet, since the fruit is still very small. This will start in early June.

Watch for Rosy Apple Aphid Activity This Week

By: Stanton Gill

One of the really devastating aphids to damage apple trees occurs at this time of year. Examine your customers' apple tip growth near apple clusters that are developing for rosy apple aphid. A properly timed management program controls this aphid. The rosy apple aphid injects a growth regulator-like toxin into foliage and fruit causing deformed fruit and leaf curling. Deformed apples do not develop and remain dwarfed and gnarled through the rest of the season.

Galls on Elm

Todd Armstrong, The Davey Tree Expert Company, found galls on American elms in Towson and Baltimore County. Galls on elms are often caused by either eriophyid mites or aphids. These galls do not impact the overall health of the tree, so control measures are not necessary.



The galls on this elm are unsightly, but do not harm the overall health of the tree.

Photo: Todd Armstrong, The Davey Tree Expert Company

Willow Leaf Beetles

Marie Rojas, IPM Scout, found willow leaf beetle larvae in high numbers on *Salix alba* 'Tristis' this week in Montgomery County. Larvae cause most of the damage, but these beetles chew on leaves as adults. In high numbers, willow leaf beetles can defoliate trees. Often, predators such as lady beetles and assassin bugs are found feeding on these beetles, so control is not necessary.



Early instars of willow leaf beetles feed together in large clusters.

Photo: Marie Rojas, IPM Scout

White Prunicola Scale - CRAWLERS

By: Stanton Gill

Marie Rojas, IPM Scout, is reporting that white prunicola scale crawlers were just hatching out on *Prunus* species in Laytonsville on May 15. The crawler stage is the time to treat with Talus or Distance.

White prunicola scale (WPS) and white peach scale look very similar. The common plants that are infested with white prunicola scale are lilac, cherry, privet, and laurel. This scale has yellow centers on the first instar cover, and the second and third covers are white.

White peach scale crawlers hatch 7-10 days after WPS. Their female covers have yellow-brown centers on the first instar, and the second and third instar covers are white.

Lilac/Ash Borer Active Now

By: Stanton Gill

The clearwing moth borer, *Podosesia syringae*, commonly called the lilac/ash borer, that attacks lilac and ash is active this week in central Maryland. We are picking up the adult males in our baited pheromone traps. The adult females will lay eggs on the bark of susceptible trees, usually on the main trunks, and the dark headed caterpillars chew their way into the cambium tissue of the plant.

Protective sprays of bifenthrin or permethrin will kill hatching larvae of this insect. For lilacs, keeping the plant renewed pruned with young vigorous growth is a non-chemical way of dealing with this pest. The adult females tend to lay eggs on mature branches 3 years old or older.



A lilac/ash borer caught in a pheromone trap.
Photo: Suzanne Klick, UME

Rust on Thornless Blackberry

Sarah Schindehette Park, Edible Eden Foodscapes, found rust on thornless blackberries this week. Rust spores are carried by the wind from alternate host plants and infect the blackberries.

University of Delaware Extension has a [fact sheet](#) with more information on rust on brambles.

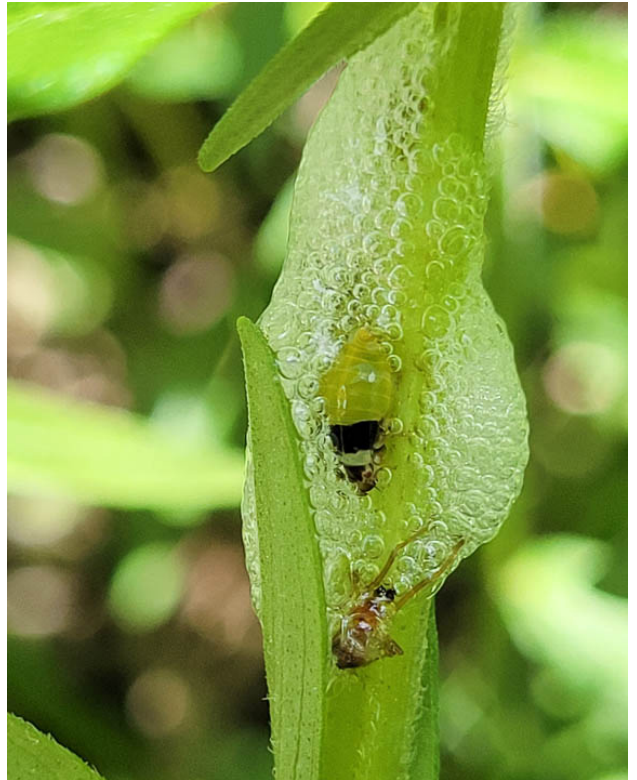


Rust on thornless blackberry.

Photo: Sarah Schindehette Park, Edible Eden Foodscapes

Spittlebugs

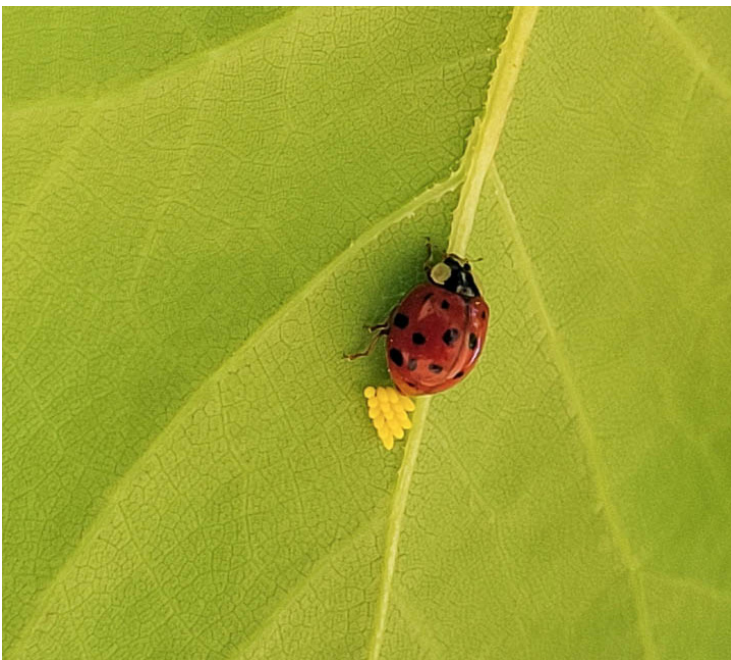
Marie Rojas, IPM Scout, is finding spittlebugs on mountain mint this week. The nymphs produce spittle to protect themselves from desiccation and predators. Often, they are not found in high numbers and do not cause significant damage.



Move away some of the spittle to find the nymph underneath. This photo shows a cast skin as well.
Photo: Marie Rojas, IPM Scout

Aphids and Beneficials

Marie Rojas, IPM Scout, reports that she is still finding a lot of aphids on various trees, including *Tilia* 'American Sentry' and *Ulmus* 'Princeton'. Marie noted "Now, some good news - still finding loads of lady beetles and lacewing eggs in nurseries."



A lady beetle laying eggs so there will be more predators to feed on the aphids.
Photo: Marie Rojas, IPM Scout



There should be plenty of aphids to eat for all of the future hatched lacewing nymphs.
Photo: Marie Rojas, IPM Scout

What Diseases to Expect on Home Lawn Turfgrass After a Rainy Period

By: Dr. Fereshteh Shahoveisi, UMD

Due to the prolonged rainy period in Maryland during the past couple of weeks, various turfgrass conditions like red thread, pink patch, Nostoc, fairy ring, and potentially powdery mildew might become more prevalent on home lawns and high-cut turfgrass. While some of these issues are not actually pathogenic organisms affecting turfgrass, their presence may still raise concerns due to their visual impact on the lawn. You can expect such diseases/issues to reduce or resolve as the weather transitions to sunnier and drier conditions.

Red Thread and Pink Patch: These two diseases are common after a rainy period in late spring and early summer. Pink patch often occurs with red thread and has similar symptoms. Management techniques are similar for both diseases. Red Thread and pink patch are identifiable by their pink, thread-like strands (mycelium and sclerotia), typically appearing in patches. These diseases thrive under wet and low nitrogen conditions. Enhancing nitrogen fertility can help suppress the disease, alongside proper watering practices to improve air circulation and reduce surface moisture. Chemical applications are not recommended.



Pink patch

Photo: Pete Landschoot, PSU



Red thread

Photo: Fereshteh Shahoveisi, UMD

Nostoc is often mistaken for a disease, however, it is actually a cyanobacteria forming slippery, green-black mats in wet areas of lawns. Control of Nostoc involves maintaining good lawn care practices, physical removal, improving drainage, and reducing irrigation to discourage its growth. Chemical treatments are generally ineffective and unnecessary against Nostoc.



Nostoc is a cyanobacteria found in lawns.

Photo: Lukas Large (MSU website)

Powdery Mildew appears as a white or gray powdery growth on the blades of grass, primarily in shaded, humid environments. While powdery mildew is not directly related to heavy rain conditions, rain can increase the humidity in the shaded areas and therefore increase the chance of powdery mildew development. To manage powdery mildew, increase light penetration and air movement through pruning trees and shrubs. Ensuring that the grass does not remain wet for extended periods is also a key factor. Fungicide treatments may be required under high disease pressure conditions but usually not needed if proper cultural practices are implemented.



Powdery mildew in turf.
Photo: Nancy Gregory, UDEL

Fairy Ring Type III is characterized by the appearance of mushrooms forming rings or arcs on the turfgrass, which often become visible following rainy periods especially in areas with poor drainage. These mushrooms are a visible sign of the fungal activity occurring underground. Fairy rings do not typically affect turfgrass health and they are primarily cosmetic problems. Fairy ring type III normally disappears under drier and warmer conditions. If you prefer the mushrooms disappear more quickly, you can consider hand removing (with gloves) or raking up the mushrooms and dispose them. Chemical applications are not required.



These Fairy Ring Type III mushrooms often show up after rainy periods or in areas with poor drainage.
Photo: NC State University

UME has job openings!

[Agent Associate- Horticulture- Baltimore Co.](#)

[Agent Associate- Horticulture- Charles Co.](#)

[Agent, Native Plants & Landscapes](#)

[Agent, Residential Landscape Ecology](#)

Beneficial of the Week

By: Paula Shrewsbury

Millipedes provide ecosystem services

With all the rain we have had, I am getting reports of millipede activity. Millipedes and centipedes are often confused with each other, but they are pretty different organisms. Both millipedes (Class Diploda) and centipedes (Class Chilopoda) belong to the subphylum Myriapoda which means “many footed”. I often get asked how you tell the difference between millipedes and centipedes so I will highlight these differences where appropriate.

First, and potentially most important, millipedes do NOT bite, centipedes can bite. Millipedes are detritivores and important players in recycling plant material, usually eating decaying plant material or moss, and occasionally feeding on plant seedlings. Whereas, centipedes are carnivorous (predators) with a poison claw. This means you can pick up millipedes with no concern, whereas you might want to pass on handling a centipede.

[Click here](#) to see a video (by M.J. Raupp, UMD) of a large North American millipede (aka eastern red-ribbed millipede) grazing on moss found on a stone. Funny that even with all those legs they still move pretty slowly. Millipedes do not really have a million or even a thousand legs. Most millipedes have less than 200 pairs of legs. The majority of body segments have two pairs of legs per segment (see images) (centipedes have 1 pair of legs per body segment). Interestingly, each segment with two pairs of legs evolved from the fusing together of two single legged segments resulting in the now characteristic 2 pairs of legs per segment. As millipedes molt and grow, they add on body segments, each with its accompanying two pairs of legs. Millipedes range in size from 0.08” up to 11” depending on species. Fossil records indicate the largest extant millipede species grew up to 6.6’ long (feet not inches). I would have liked to see that millipede, at a distance of course. Millipedes have long somewhat cylindrical bodies (centipede bodies appear flattened). They live from two to seven years and produce hundreds of offspring during their lifetime. Although millipedes do not bite as a form of defense, they will tuck their heads in and coil their bodies exposing only their hard exoskeleton for protection. They also can secrete chemicals from glands on their bodies. These



A common garden millipede (~1/5” long) crawling on the sidewalk near a landscape bed. Note the cylindrical shape of the body.

Photo: M.J. Raupp, UMD



A large giant African millipede that is native to subtropical Africa (can get up to 11” long). You can clearly see the 2 pairs of legs per body segment.

Photo: M.J. Raupp, UMD

chemicals can be noxious and smell bad, and used to deter potential predators such as toads or lizards. You might want to wash your hands after handling a millipede since the chemicals can irritate the skin and stain clothes.

If you come across any millipedes, be sure to treat them with respect and leave them to their business. Millipedes provide the ecosystem service of decomposition and recycling of plant material.



Note the flattened body and one pair of legs per body segment that are characteristic of centipedes. Photo by M. Bertone, NCSU

Weed of the Week

By: Kelly Nichols, UME-Montgomery County

Cogongrass (*Imperata cylindrica*) is an invasive, perennial grass from Southeast Asia. It was accidentally introduced to the United States in the early 1900s. It is also known as Japanese bloodgrass. There is a cultivated variety, 'Red Baron', a red ornamental. It was originally thought to be sterile; however, it has been found to go back to an aggressive, green, wild-type form, which can produce fertile seeds and seedlings. Cogongrass is on the Federal Noxious Weed List; as such, it requires a permit for interstate movement. The receiving state must agree with the permit. Due to its invasive status, Maryland does not approve of permits to bring cogongrass into the state.

Cogongrass spreads by rhizomes and seeds. The leaves are basal, meaning they start at the base of the plant rather than along the stem. One distinctive characteristic is the midvein of the leaf blades, which is off-center and white (Figure 1). Leaf blades have a sharp tip, serrated edges, and a membranous ligule with a fringe of hairs. Stems can reach a height of up to four feet. Rhizomes are thick and sharp at the tip (Figure 2). Some populations of cogongrass do not flower. When present, seedheads form a panicle with white silky hairs on the spikelet, giving it a fluffy appearance (Figure 3).



Figure 1. The white, off-center midvein. Photo: Chris Evans, University of Illinois, Bugwood.org.



Figure 2. Cogongrass roots and white rhizomes. Photo: Chuck Barger, University of Georgia, Bugwood.org

Cogongrass typically grows in disturbed areas like roadsides, and it can also do well in poorer soils (high salinity, sandy, or leached acid soils with low organic content). The rhizomes can survive wildfires. Deep tillage (at least 6 inches) can be effective, but only for newer patches. Equipment must be cleaned in order to prevent the spread of rhizomes. Research conducted by universities in the southern U.S. have found glyphosate and imazapyr to be effective. At least two applications per year are needed, and older infestations may need a few years of treatment in order to get rid of the rhizomes. Glyphosate does not have soil residual activity and may be the better option for areas such as flower beds. Imazapyr does have a long soil residual activity period (1-2 years), which can affect ornamentals and vegetable crops; therefore, it is labelled for and primarily used in forested sites, pasture/rangeland, and non-agricultural lands.



Figure 3. Cogongrass seedheads.
Photo: Chris Evans, University of Illinois, Bugwood.org.

Plant of the Week

By: Ginny Rosenkranz

Amsonia 'Blue Ice' is cultivar that looks very similar to *Amsonia tabernaemontana* but is much more compact and produces larger darker blue flowers. Research at Mt. Cuba states that 'Blue Ice' is closer to *A. orientalis*, and is a superior form of that non native. Both *A. orientalis* and 'Blue Ice' are clump-forming, upright herbaceous perennials and the only ones that spread by rhizomes to create a carpet, but 'Blue Ice' is more compact and produces more flowers that are a deeper blue than *A. orientalis*, which produces less flowers in a lavender color. 'Blue Ice' carries its star-shaped periwinkle blue flowers in pyramidal clusters at the top of each stem and bloom from May into June. Most of *Amsonia* plants have a diversity of pollinators, but 'Blue Ice' attracted the least number of pollinators at Mt. Cuba. The foliage however provides for many varieties of caterpillars as host plants.

Plants grow 12 – 18 inches tall and wide and thrive in full sun to partial shade. If they receive too much shade the branches tend to flop over. They are cold tolerant in USDA zones 4-9, and prefer moist, loamy well drained soils. The narrow dark green lance-shaped leaves have a smooth or entire margin and are arranged in an alternate fashion on the stems. Like



most of *Amsonia*, the leaves turn a warm yellow gold in the late autumn. Because the plants are compact, they are excellent as an edging plant but can also be used in groups in butterfly, cottage, pollinators gardens and open woodland gardens. There are no serious insect or disease pests, but the sap in the stems deter deer.



***Amsonia* 'Blue Ice' is a compact plant that produces large, dark blue flowers.**

Photos: 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 **413 DD** (Martinsburg) to **751 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.

- 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 (2nd 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 (1st gen) **(468 DD)**
- Oak erricoccin scale (oak felt scale) – egg hatch / crawler **(469 DD)**
- Maskell scale – egg hatch / crawler (1st gen) **(470 DD)**
- Oystershell scale – egg hatch / crawler (1st gen) **(486 DD)**
- Minute cypress scale – egg hatch / crawler **(511 DD)**
- White prunicola scale – egg hatch / crawler (1st gen) **(513 DD)**
- Euonymus scale – egg hatch / crawler (1st gen) **(522 DD)**
- Bronze birch borer – adult emergence **(547 DD)**
- Potato leafhopper – adult arrival **(603 DD)**
- Black vine weevil – adult emergence **(607 DD)**

Twospotted spider mite – egg hatch (**627 DD**)
 Bagworm – egg hatch (**635 DD**)
 Crapemyrtle bark scale – egg hatch (1st gen) (**638 DD**)
 Cottony camellia / Taxus scale – egg hatch / crawler (**649 DD**)
 Mimosa webworm – larva, early instar (1st gen) (**674 DD**)
 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**)

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 May 15)

Annapolis Naval Academy (KNAK)	571
Baltimore, MD (KBWI)	564
College Park (KCGS)	563
Dulles Airport (KIAD)	632
Ft. Belvoir, VA (KDA)	622
Frederick (KFDK)	563
Gaithersburg (KGAI)	508
Greater Cumberland Reg (KCBE)	510
Martinsburg, WV (KMRB)	413
Millersville (MD026)	540
Natl Arboretum/Reagan Natl (KDCA)	722
Perry Hall (C0608)	479
Salisbury/Ocean City (KSBY)	532
St. Mary's City (Patuxent NRB KNHK)	751
Susquehanna State Park (SSQM2)	499
Westminster (KDMW)	620

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

May 22, 2024

MAA Pest Walk

Location: CMREC, Ellicott City, MD

[Registration Information](#)

June 4, 2024

MNLGA Program: Focus on Garden Centers

Location: Ladew Gardens, Monkton, MD

[To register](#)

June 5 and 6, 2024

Biological Control Conference for Greenhouses, Nurseries, and Landscapes

Location: Carroll Community College, Westminster, MD

[Registration via Eventbrite](#)

June 14, 2023

Eastern Shore Pesticide Recertification Conference

Location: via Zoom

[For more information and to register.](#)

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

[Registration information](#)

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 [IPMnet Conference Page](#) for links and details on these programs.

Commercial Ornamental IPM Information

<http://extension.umd.edu/ipm>

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