

Commercial Horticulture

May 10, 2024

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IPMnet
Integrated Pest
Management for
Commercial Horticulture
extension.umd.edu/ipm

If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems (**include location and insect stage**) found in the landscape or nursery to sgill@umd.edu

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Weed of the Week: Chuck Schuster (Retired Extension Educator), Kelly Nichols, Nathan Glenn, and Mark Townsend (UME Extension Educators)

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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.

White Prunicola Scale

By: Stanton Gill

We received several emails and calls requesting an update on white prunicola scale. This armored scale is showing up on cherry laurels and cherry trees and some oriental holly plants in heavier numbers in 2024. The crawler period should be starting at 513 degree days. In some areas like cities such as Washington, D.C., Baltimore, Rockville, and Bethesda, you have reached or are close to reaching this degree day mark this week. In outlying county areas, you still have a little time to go before crawlers.

At crawler activity time, you will find the most predators and parasites active. For this reason, we usually recommend using Talus or Distance insect growth regulators at this stage of development. Some landscapers have used Azadiracthin, such as Molt-X or Aza-Direct, acting as an insect growth regulator, with several managers reporting good success.



Female white prunicola scale cover removed to show female body and some eggs underneath.
Photo: Suzanne Klick, UME

Crapemyrtle Bark Scale

Heather Zindash, The Soulful Gardener, observed crapemyrtle bark scale with eggs under adult female covers on May 8 in Gaithersburg. David Keane, Howard County Dept. of Recreation and Parks, also found a scale population in Columbia this week. Degree days for egg hatch is at about 638. Continue to monitor scale populations. We should see crawler emergence later this month. When eggs hatch, Distance or Talus will be a good choice. There are multiple generations of this scale species in this area. We are continuing to monitor a population here at the research center to determine the life cycle of crapemyrtle bark scale in Maryland.



Female crapemyrtle bark scale covers flipped over to show eggs underneath. Egg hatch is likely in this area later this month.
Photo: Heather Zindash, The Soulful Gardener



The *Hyperaspis* lady beetle larva is feeding among a good population of crapemyrtle bark scale.
Photo: Luke Gustafson, The Davey Tree Expert Company

Japanese Maple Scale (JMS)

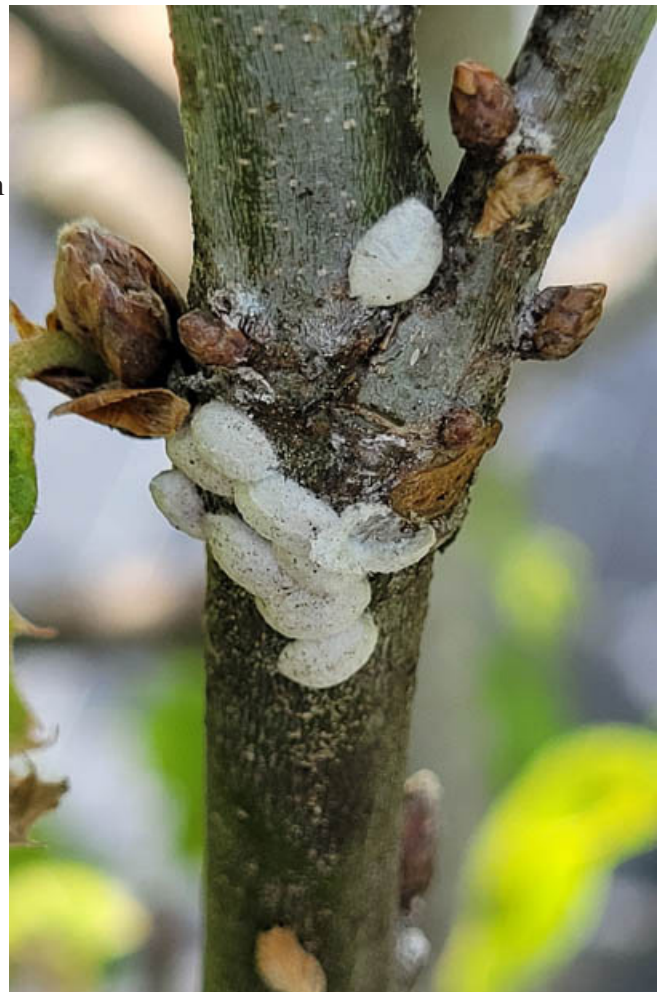
In Baltimore County and Gaithersburg, Heather Zindash is finding eggs under female covers of Japanese maple scale. This scale has an extensive host range. It also blends easily into the bark of trees so monitor plants closely. The first generation egg hatch for JMS occurs in June. Degree day totals for egg hatch is around 829. Wait until crawlers are active to apply either Talus or Distance.



Japanese maple scale is another species to monitor closely later this month into June for egg hatch.
Photo: Heather Zindash, The Soulful Gardener

Oak Felt Scale

Marie Rojas, IPM Scout, found oak felt scale on black oak (*Quercus vulgaris*) container stock in Gaithersburg on May 8. Look for active crawlers now. Horticultural oil, Talus, or Distance applications targeting the crawlers can help reduce felt scale populations. *Hyperaspis* lady beetles have also been observed feeding on this scale.



Look for crawlers of felt oak scale now.
Photo: Marie Rojas, IPM Scout

Cottony Camellia/Taxus Scale

Micah Hewitson, Bartlett Tree Experts, found cottony camellia/Taxus scale producing eggs on a boxwood leaf. So far, we have not received a report of crawlers which will be occurring in late May to early June. Talus and Distance can be applied when crawlers are active.



Cottony camellia/Taxus scale are producing eggs at this time of year.

Photo: Micah Hewitson, Bartlett Tree Experts

Eastern Tent Caterpillars

David Freeman, Oaktree Property Care, found a little unusual activity from what looks to be eastern tent caterpillar on callery pear in Fredericksburg, VA. Fall webworm caterpillars are the ones which web the ends of branches, but it is too early in the season for the activity. These caterpillars are forming the tent on the end of branches instead of in the crotch angle of a branch. Eastern tent caterpillars are finishing their feeding at this point and are looking for places to pupate.



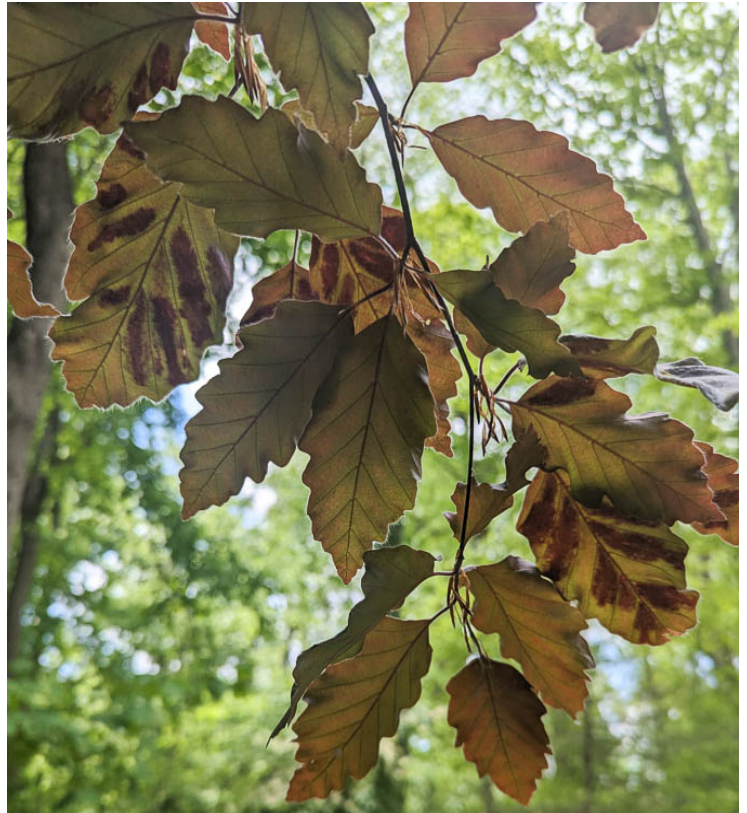
Eastern tent caterpillars are most often forming tents in the crotch angles and not on the tip of branches.

Photo: David Freeman, Oaktree Property Care

Beech Leaf Disease Reports in Pennsylvania and Maryland

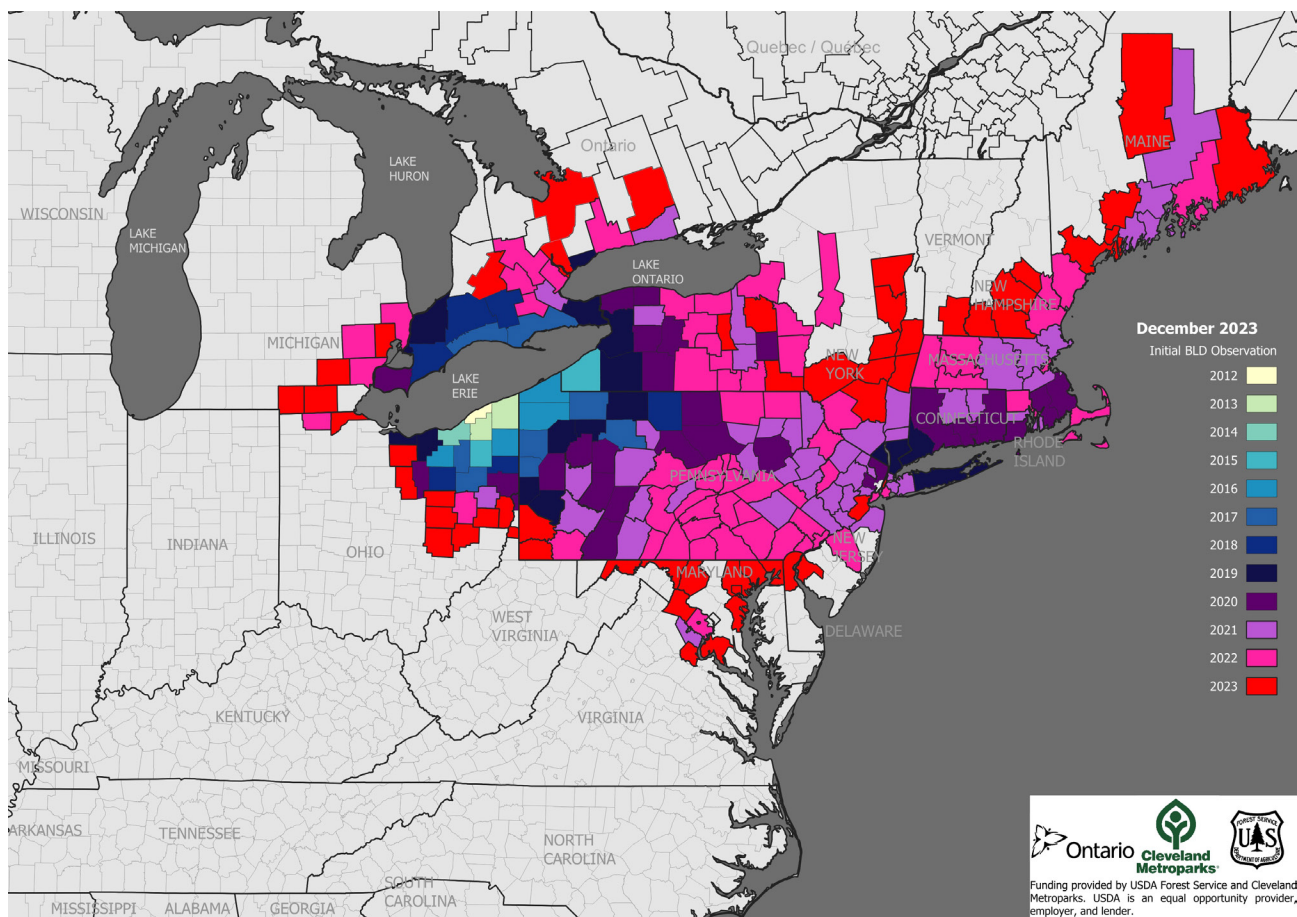
Chris Ward, John B. Ward Co., found beech leaf disease in Wynnewood, PA last week and had it confirmed by the Rutgers Plant Diagnostic Laboratory. Chris noted, "This is our first encounter with BLD and have found it several times since. It seems to be all over Southeastern PA."

The UME Home and Garden Information Center received a few pictures of beech leaf disease in Harford County and noted that the county now has multiple positive cases.



Copper beech with beech leaf disease found in Wynnewood, PA.

Photo: Justin Shirley of John B Ward and Co.



Distribution of beech leaf disease as of December 2023.

Fringe Tree as a Cut Woody Stem

By: Stanton Gill

Four years ago, Alan Jones, Manor View Nursery, gave me a fringe tree. It is called 'White Knight'. It came into bloom this last week and it is spectacular. I cut a couple of stems and tried it out as a woody cut stem. It has held up for the last 4 days in a vase looking great. This is another woody cut stem that fits into the wedding season.

See Ginny's plant of the week article for more info.



Consider using 'White Knight' fringe tree flowers as a cut woody stem.

Photo: Stanton Gill, UME

Oriental Fruit Moth Activity

By: Stanton Gill

We picked up adult males of oriental fruit moth in Westminster this week on May 5th. Oriental fruit moth, *Grapholita molesta*, which is in the family called Tortricidae, damages mainly peach, nectarines and apples. The female moth. It was introduced from China back in 1913 and has spread across the United States. We received a picture of a larva in a young apple fruit in Howard County on Wednesday of this week, so there is already larval activity in warmer areas. Once a larva is inside the fruit the game is over for that individual fruit.

The female moth lays up to 200 eggs and sticks them on the top sides of foliage near the fruit. The larvae have a distinct black head capsule. The larva will enter the young fruit and can also bore into young tip growth on peaches. As fruit develop the larvae will often enter near or through the stem end of stone fruit or calyx end of apple and bore directly into the interior of the fruit.

OFM larvae feed on larvae tunnel in tender twigs causing twig die-back of peach, apple, quince, pear, plum, cherry, apricot, and nectarine. Larvae will enter into growing shoots and tunnel into the stem causing the terminals to wither and brown, at times resembling fire blight strikes and often called flagging. There will be two more generations in June and mid to late July.

Last weekend, I applied Delegate (Spinosad) with a spreader sticker on my peaches and apples. For the organic types there are wettable powder formulations of Spinosad, but make sure you apply it with a good spreader sticker. I used Nu-film, which is labeled for organic use.

Another material that works well is Altacor from FMC. I have used this in 2023 with great success. It is expensive with a quart container costing close to \$300 but the use rate is very low. It is a systemic and have ovicidal activity on the moth larvae. In our trials it has had very low impact on beneficial organisms. I will likely use this one for the second generation coming in June, when pressure gets very heavy for this Tortricid moth activity.

Blister Beetles

David Freeman, Oaktree Property Care, found a blister beetle in Great Falls, VA this week. Blister beetles secrete a blistering substance called cantharidin, so it is important to avoid handling them. These beetles feed on plants. Occasionally, they can be found in high numbers and cause significant damage. They usually do not stay in an area for very long. Often, they are not a problem, so control is rarely necessary. Blister beetles are highly toxic to animals, especially horses.



Blister beetles are seen in landscapes throughout the season.
Photo: David Freeman, Oaktree Property Care

Euonymus Leaf-notcher Caterpillar

Euonymus leaf-notcher caterpillars are finishing up their feeding for the season. John Davis, Bartlett Tree Experts, found an euonymus hedge that was completely stripped clean by euonymus leaf-notcher caterpillars near White Marsh. There is only generation per year, so no control measures are necessary at this time.



Euonymus leaf-notcher caterpillars have defoliated this euonymus hedge. It is early in the season and the plants will leaf out again.
Photos: John David, Bartlett Tree Experts

Plum Curculio Activity and Peach Leaf Curl

We continue to get reports of plum curculio activity and peach leaf curl infection. There is a [Penn State Fact Sheet](#) with more information on the life cycle and control of plum curculio. It is not the right time of year to treat for peach leaf curl.



Peach leaf curl infection and start of plum curculio damage on fruit.
Photo: Darren Jarboe, UME

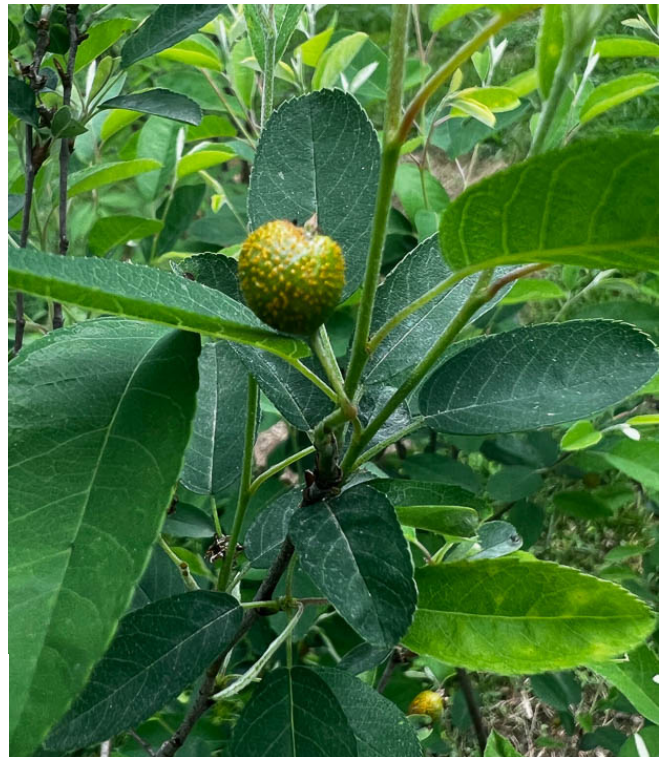


Close-up of peach leaf curl infection damage in Jarrettsville
Photo: Todd Armstrong, The Davey Tree Expert Company

Rust Disease

By: Stanton Gill

We are continuing to see strong activity from rust disease this week. Make sure protectant sprays are on the susceptible species of plants. Manzate is a standard material for rust disease prevention. Last year our team tested out Postiva and Mural, and both performed very well.



Rust infection is active on amelanchier fruit in Jarrettsville on May 9.
Photo: Todd Armstrong, The Davey Tree Expert Company

Bead Gall Mites

Marie Rojas, IPM Scout, found high populations of persimmon bead gall mites (*Aceria theospyri*) on containerized *Diospyros virginiana* in Gaithersburg. These galls do not cause a significant problem for the tree, so control is not necessary.



Eriophyid mites (*Aceria theospyri*) are causing these galls on the persimmon foliage.

Photo: Marie Rojas, IPM Scout

Red Thread and Pink Patch in Turf

Mark Schlossberg, ProLawn Plus, Inc., is reporting that red thread and pink patch infections are very prevalent all over the area this week. Dan Barcikowski is also finding red thread infection in lawns. Pink patch disease is often found along with the development of red thread disease in turf. Cool, wet weather provides optimal conditions for disease development. Both diseases are more a problem in low fertility turf areas. Supplying N-fertility during infection periods may help to alleviate some of the symptoms, but keep in mind that these turf diseases are very persistent in the spring months. See the [UMD Red Thread and Pink Patch Fact Sheet](#) by Dr. Peter Dernoeden for control options and more information.



Red thread and pink patch infections in turf.

Photo: Mark Schlossberg, ProLawn Plus, Inc.



Damaged areas in turf with infections of red thread.

Photo: Dan Barcikowski

Interesting Heritage Fruit

By: Stanton Gill

Nursery owners should always be on the lookout for interesting trees that others have not discovered yet. In the quest to try out interesting fruit that others are not growing, three years ago I was asked about growing Medlar, *Mespilus germanica*, fruit. The request came from a family from Persia. They said this fruit was grown in various parts of Persia. Looking into this fruit, I contacted Scott Aker, then at the US National Arboretum. He said they had one growing in Washington, D.C at the arboretum.

The fruit tree was cultivated by the Romans and moved through their empire for over 2,000 years, so it is established in Persia and many European countries. Before sugar cane was made popular, it was the main source of sugar used in holiday meals. The fruit can be eaten raw, but many people would let it ferment to increase sugar content and use it in cooking.

Under ideal circumstances, the plant grows up to 8 meters (26 feet) tall. Mature trees are rather globe-shaped and rather pleasant looking. I am growing this fruit not only to investigate if it is a viable candidate for the nursery industry, but also to see what pests might attack it. Generally, it is shorter and more shrub-like than tree-like. It has a lifespan of 30–60 years. It took my plants three years to come into flower, and it is one slow grower. The reddish-brown fruit is a pome.



**It took three years to get this Medlar to bloom.
Photo: Stanton Gill, UME**

This fruit was very popular for centuries but with all of the sugar cane and beet sugar available it fell to the wayside. In Europe this fruit is making a come-back. I only found a few suppliers of specialty fruit in America carried this fruit tree. It is worth investigating as a potential fruit for nurseries selling fruit planting to their customers.

Deer Damage

Timothy Overstreet, Howard County Dept. of Recreation and Parks, found Candy Corn spirea that was likely nipped down by deer.



**Feeding damage on spirea
Photo: Timothy Overstreet, Howard County Dept. of
Recreation and Parks**

Spotted Lanternfly Update – Eggs Continue to Hatch

By: Paula Shrewsbury, UMD

Reports of spotted lanternfly (SLF) eggs hatching continue, most recently in Keedysville (Washington County, MD) and in Columbia and Savage (Howard Co, MD). If you see SLF eggs hatching, please let Stanton Gill (sgill@umd.edu) and me (pshrewsbury@umd.edu) know when, where, and on what host tree (if you know it). As mentioned last week, the early instar nymphs of spotted lanternfly do not cause any significant damage. Even if you control those you see now, it does not prevent others from moving in later in the season.



A newly emerged spotted lanternfly nymph.
Photo: E. M. Russavage, UMD

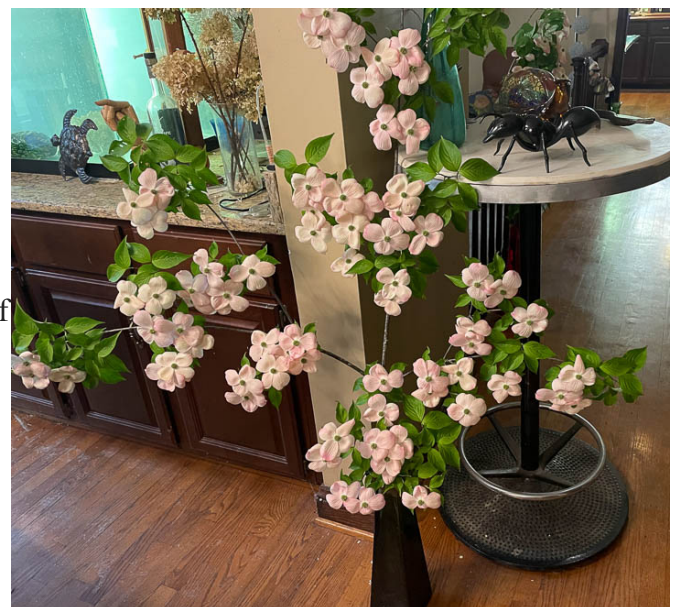


First instar nymphs are black with white spots and can be quite active (jumping, walking, feeding).
Photo: P.M. Shrewsbury, UMD

Cornus kousa as a Cut Woody Flowering Plant

By: Stanton Gill

My youngest daughter is getting married on May 18, so we were searching for flowering plants that could be used in flower arrangements. So far, ‘White Knight’ fringe tree flowers look perfect. We have several cultivars of hybrid *Cornus kousa* and *Cornus florida* on the farm. We cut 3 ft branches off one of the cultivars which was in full bract/bloom and put it in a large upright vase. It made a spectacular flat branch display. We cut it on May 3, and as of May 6, it is still looking great. We have 5 different cultivars of *Cornus* hybrids which open their bracts/flowers over the next couple of weeks, so this has potential for a fairly long time to harvest good-looking branches in May. Some of you may have already experimented with cut *Cornus* branches. If so, you are ahead of the game. For the rest, this might be something you want to try out.



We cut pink dogwood and it is holding for over 3 days in a vase. It makes a great floral display.
Photo: Stanton Gill, UME

Aphids: A Consistent Pest Problem This Spring

We are getting regular reports of aphids this spring. They are being found on a wide variety of plants including hellebores, birches, spirea, crape myrtle, and viburnums. Jay Ludwig is finding aphids on arrowwood viburnums that have been challenging to control. The likely species is snowball aphid (*Ceruraphis viburnicola*). He is also reporting spiny witchhazel gall aphids on river birch. Altus can be used for aphid control with minimal impact on beneficials. Endeavor is another option. It is a stylet blocker and does not impact beneficials. Along with the aphids (and scale insects, caterpillars, and mealybugs) are a wide variety of predators. Often in the spring, populations of aphids on plants in the landscape are brought down by activity of predators and parasitoids and controls are not necessary.



This aphid is damaging viburnums this spring.

Photo: Jay Ludwig



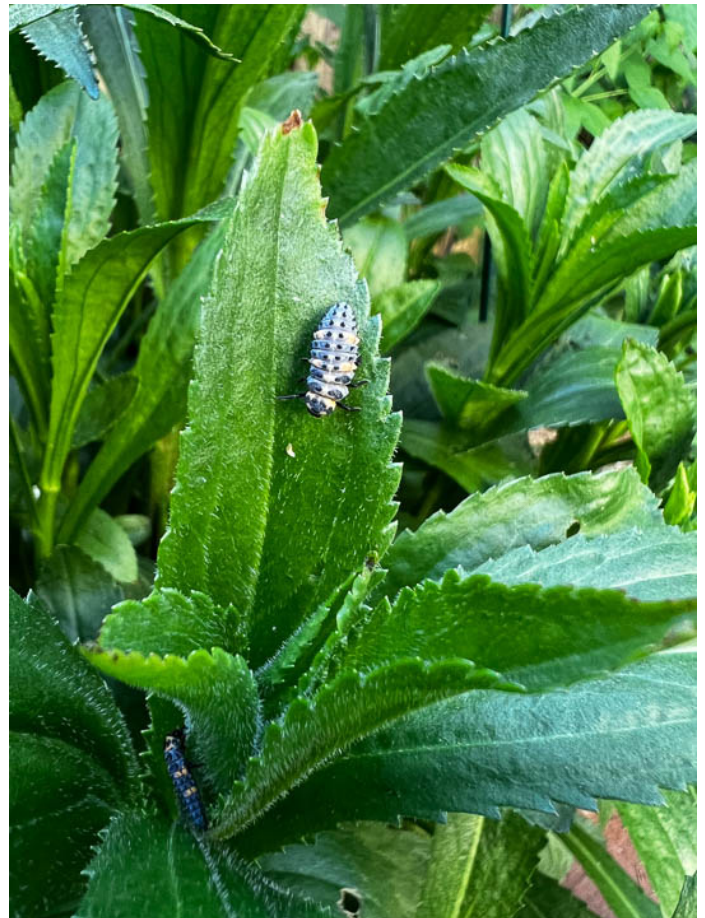
An adult lady beetle is feeding on these aphids.

Photo: Jay Ludwig

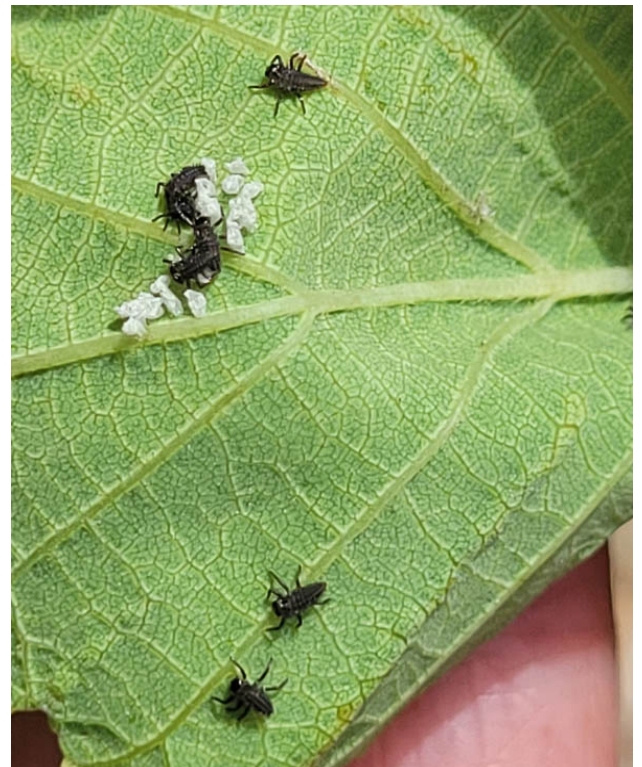


Lady beetle larvae are feeding on spirea aphids. Luke also found a lot of aphids on hellebores in Baltimore County.

Photo: Luke Gustafson, The Davey Tree Experts



Lady beetle pupa and larvae found on *Leucanthemum x superbum*
Photo: Sheena O'Donnell, UME



Bright orange lady beetle eggs among aphids on a birch leaf; and just hatched lady beetle nymphs.
Photo: Marie Rojas, IPM Scout

Predators of Spongy Moth Caterpillars

From Lucas Kilgore, Casey Trees: "Here are two photos of some awesome examples of predatory insects assisting in the care of our tree farm out here in Berryville, VA. The top photo is an anchor stink bug (*Stiretrus anchorago*) eating a spongy moth caterpillar (*Lymantria dispar*). The second photo is of a spined soldier bug (*Podisus maculiventris*) feeding on another spongy moth caterpillar. It is nice seeing beneficial insects first hand munching on these particular caterpillars because this year we are finding an incredibly high number of the spongy moth caterpillars on almost all of our trees regardless of species."

Photos: Lucas Kilgore, Casey Trees



May 22 2024 - Evening Plant Diagnostic Clinic of Trees and Shrubs for Arborist and Landscapers

By: Stanton Gill

In partnership with the Maryland Arborist Association, the University of Maryland Extension IPM team will be conducting an evening diagnostic clinic for improving your IPM skills on May 22, 2024. This will be held at our Central Maryland Research and Education Center as an outside event. Our experts will update attendees on relevant insect and disease issues. Afterwards, we will lead attendees on a walk of the facility to identify problems in the landscape, and demonstrate how drone technology can help address these issues. Dinner is included in the registration cost. Maryland Pesticide credits have been approved, and Maryland Licensed Tree Expert, International Society of Arboriculture, and DC Pesticide credits have been requested for full attendance of the program. Registration is being handled by the Maryland Arborist Association, and may be found here: <https://pestwalk24.eventbrite.com>. The program starts at 5:00 p.m. and ends at dark. It will be at 4240 Folly Quarter Road, Ellicott City, MD.

UMD/UME Job Postings

[Agent, Native Plants & Landscapes Specialist](#)

[Assistant Professor-Abiotic Stress Plant Biologist](#)

[Assistant Professor and Extension Specialist-Invasive Species Plant Biologist](#)

Beneficial of the Week

By: Paula Shrewsbury

Hyperaspis lady beetles

In last week's newsletter, there was a report of tulip tree scale, a native, on tulip poplar. As mentioned, tulip tree scale crawlers are active in the fall (unlike most soft scale species whose crawlers are active in the spring) and that this is not the time to apply control measures. Sheena also mentioned a native pyralid moth (*Laetilia coccidivora*) whose larval stage feeds on tulip tree scale. Today I want to mention another predator, *Hyperaspis* lady beetle, that is adapted to feeding on soft scales such as tulip tree scale in addition to scale insects that lay their eggs in cottony white ovisacs (*Pulvinaria* spp., Coccidae), such as cottony camellia / taxus scale.



Adult *Hyperaspis* lady beetle with tulip tree scale.
Photo: M.J. Raupp, UMD

Lady beetles, also known as lady bird beetles or ladybugs, are in the family Coccinellidae. Not all lady beetles are red with black dots. There are many types of lady beetles whose adults and larvae vary greatly in size and color patterns. For example, the adult *Hyperaspis* lady beetle seen here (see image) is black with two red spots and small white patches on each side behind the head (on the pronotum). There are other species of *Hyperaspis* that vary in the number and color of spots, most species are small in size (~2-3 mm long). The larvae of *Hyperaspis* lady beetles are oval shaped and some species are covered with white wax (see images). To the inexperienced eye, the *Hyperaspis* larva may be mistaken for a mealybug, a pest insect. To distinguish

between the good guy (predatory *Hyperaspis*) and the bad guy (plant feeding mealybug), you should flip the white waxy larva over and determine if it has chewing (lady beetle) or sucking (mealybug) mouthparts.

Although many species of lady beetles are generalists and feed on a range of insects, *Hyperaspis* lady beetles (adults and larvae) commonly feed on soft scales (all stages). See the image of the white waxy *Hyperaspis* larva that worked its way under the female soft scale to feed on her eggs. There are reports from Virginia that *Hyperaspis* is consuming and reducing populations of the newly invasive crape myrtle bark scale (Eriococcidae). *Hyperaspis* adult females lay their eggs on bark or foliage, near the ovisac of a scale insect. The *Hyperaspis* eggs hatch and the young larvae eat the eggs of the scale under the female or in the ovisac.

Hyperaspis larvae can help in monitoring for soft scales. Their white color makes them very noticeable. If you see the white waxy lady beetle larvae on your plants, look closer to see if you have soft scale too. If you do, consider not applying pesticides and letting these predators do their thing. If the soft scale population is high and producing abundant honeydew you may want to treat the scale with a product that is easy on natural enemies, and consider treating in the winter with an oil spray. This will reduce the scales and conserve the predators so they can keep the scale populations down.



White, wax covered larvae of a *Hyperaspis* lady beetle foraging on scale nymphs settled along the branches.

Photo: P. Shrewsbury



White waxy *Hyperaspis* larva has worked its way under a female soft scale and is snacking on her eggs.

Photo: M.J. Raupp, UMD

Weed of the Week

By: Nathan Glenn, UME-Howard County

As our weather continues to get warmer, we will continue to progress through the end of the winter annual life cycle. These weeds have germinated in late summer or early fall, overwintered as a seedling, and began their flowering stage as the weather warmed up this spring. Hairy bittercress, *Cardamine hirsuta*, is a broadleaf winter annual weed found throughout northeast landscapes and turf. It can be identified in its vegetative stage by its basal rosette of pinnately lobed or compound leaves, each with more than 3 leaflets. Its distinct fruiting stems protrude about twelve inches from the base of the plant and end with slender seedpods (siliques). These **siliques** are narrow capsules that are designed to release the seeds that are held within in an explosive manner, spreading the seed up to eight feet from the plant. In one research study, the average plant produced 68 of these siliques or seed pods with an average of 29 seeds per pod. The leaflets are rounded, emerging from a petiole that is hairy. Leaf size decreases as they emerge higher on the stem. The flower of this weed will be in clusters at the end of flowering stems, are two to three mm in diameter, and will be made up of four petals.



**Hairy bittercress
Photo: Melissa Thorpe**

Hairy bittercress is best controlled by maintaining a healthy, dense turf that can compete and prevent weed establishment. It grows best in a cool, moist environment, and often when a turf manager is mowing their lawn too short. In addition, prior to seeking the use of pesticides, you can employ hand pulling if it is feasible, especially before establishment and infestation of the weed gets out of hand. If chemical control is necessary, you have the choice between a preemergent applied in late summer/early fall, or spot treating seedlings in the spring with a postemergent. Look for a product with one or more of the following ingredients: 2, 4-D, MCPP (mecoprop), Dicamba* or Triclopyr.



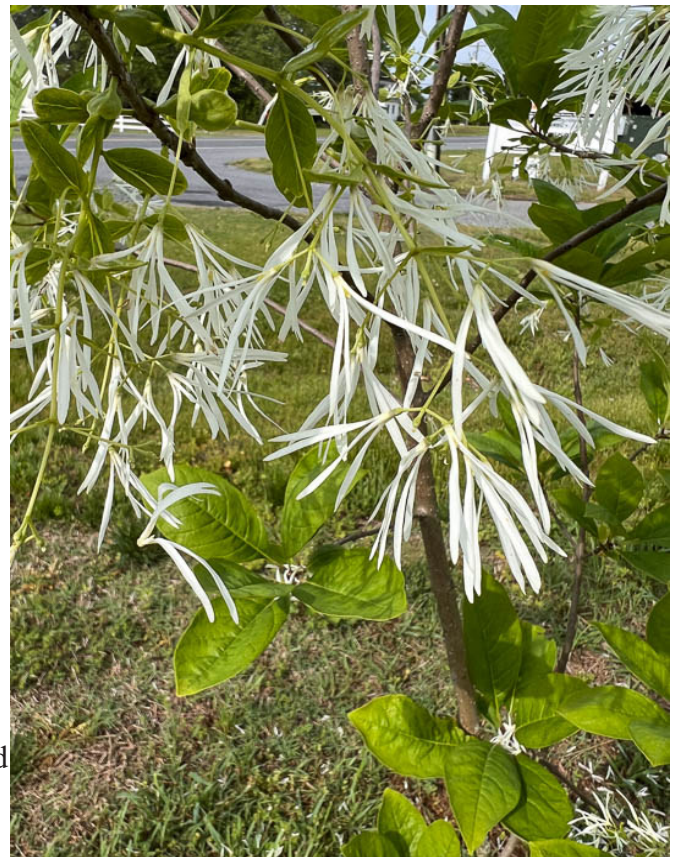
Virginia Tech Weed ID Guide

Hairy bittercress in flower.
Photo: Virginia Tech Field Guide

Plant of the Week

By: Ginny Rosenkranz

Chionanthus virginicus is also known as fringetree, old man's beard, sweetheart tree, or white fringetree. Fringetree is a deciduous native small tree or shrub that grows 12 – 20 feet wide and tall, often with a multi-stemmed habit. The plants thrive in full sun or part shade in rich, moist, well drained soils, and are cold tolerant in USDA zones 3-9. The botanical name in Greek translates to snow flower because the white flowers are so bright against the light green foliage. The sweetly fragrant flowers bloom in May and are made up of 4-5 ray petals about an inch long. The flowers are produced in cascading clusters on the previous year's growth. The clusters of flowers can be up to 4-8 inches long and flutter in the slightest breeze. *Chionanthus virginicus* is dioecious, which means that the trees are either male or female trees. The male tree flowers are larger and showier, but they also can produce perfect flowers which has both male and female parts. Once the perfect and female flowers are fertilized, they mature to create clusters of olive-like fruit that starts out green and matures to a dark blue-black color. The flowers attract pollinators, and both songbirds and small mammals enjoy the fruit in the autumn. The spear-shaped, 8-inch long light green leaves have a smooth or



entire margin and are arranged opposite each other on the stems. These plants are one of the last to leaf out in spring, and the flowers can sometimes emerge before the foliage. The fall color of the foliage is a golden yellow. Fringetree fits in small gardens as well as native, pollinator, fragrant, and children's gardens. There are no serious insect or disease problems, although if grown in dry soils, the plants can be susceptible to borers and scale.



***Chionanthus retusus* in bloom**
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 369 DD (Martinsburg) to 647 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.

- 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 (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 erricocin 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)

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 8)

Annapolis Naval Academy (KNAK)	491
Baltimore, MD (KBWI)	498
College Park (KCGS)	492
Dulles Airport (KIAD)	556
Ft. Belvoir, VA (KDA)	549
Frederick (KFDK)	493
Gaithersburg (KGAI)	450
Greater Cumberland Reg (KCBE)	452
Martinsburg, WV (KMRB)	369
Millersville (MD026)	479
Natl Arboretum/Reagan Natl (KDCA)	634
Perry Hall (C0608)	417
Salisbury/Ocean City (KSBY)	470
St. Mary's City (Patuxent NRB KNHK)	647
Susquehanna State Park (SSQM2)	434
Westminster (KDMW)	538

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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