

Commercial Horticulture

June 3, 2022

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IPMnet  
Integrated Pest  
Management for  
Commercial Horticulture  
[extension.umd.edu/ipm](http://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](mailto:sgill@umd.edu)

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Weed of the Week: Chuck Schuster (Retired Extension Educator) and Kelly Nichols (Extension Educator, Montgomery County)

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### Insects Galore

By: Stanton Gill

The warm weather this week has brought every insect out to explore the environment and feast on your customers' favorite plants. We have stink bugs active, four-lined plant bugs, hawthorn and andromeda lace bugs, prunicola scale in crawler stage, emerald ash borer adults flying, spotted lanternflies in the nymph stage, and thrips blowing up from the south. You name it, they are active this week.



UMD-IPMnet

**Robber flies are generalist predators that are active at this time**

Not to worry, we are also seeing assassin bugs, robber flies, and many species of lady bird beetles active in nurseries and in the landscape.

## Biological Control for Nurseries and Greenhouses Conference

By: Stanton Gill

On June 30, 2022, The University of Maryland Extension and MNLGA have organized a Biological Control Conference that will help you move forward with biological control in your operation. On July 1, we will have a morning session with a live demonstration of using a commercial steam device to control weeds in nurseries. This session on the second day will be hosted at Emory Knoll Farms, Street, Maryland.

We are bringing in speakers from Maryland, across the country, and from Canada to share information on practical biological control options.

Registration is \$90 for members and \$140 for non-members. The [agenda and registration link](#) are available online.

### Fall Webworms

Marie Rojas, IPM Scout, found fall webworms were just hatched out and feeding on *Malus x domestica* 'Freedom' in Frederick on June 1. Fall webworms have a wide woody plant host range. They feed within the webbing which is around the tips of branches and not in the crotches like eastern tent caterpillars which are active much earlier in the season. There are two generations per season. Usually, the generation in late summer to fall is more abundant. There are two color forms of the caterpillar: one that is yellowish white with a black head and one that is brown with a red head.

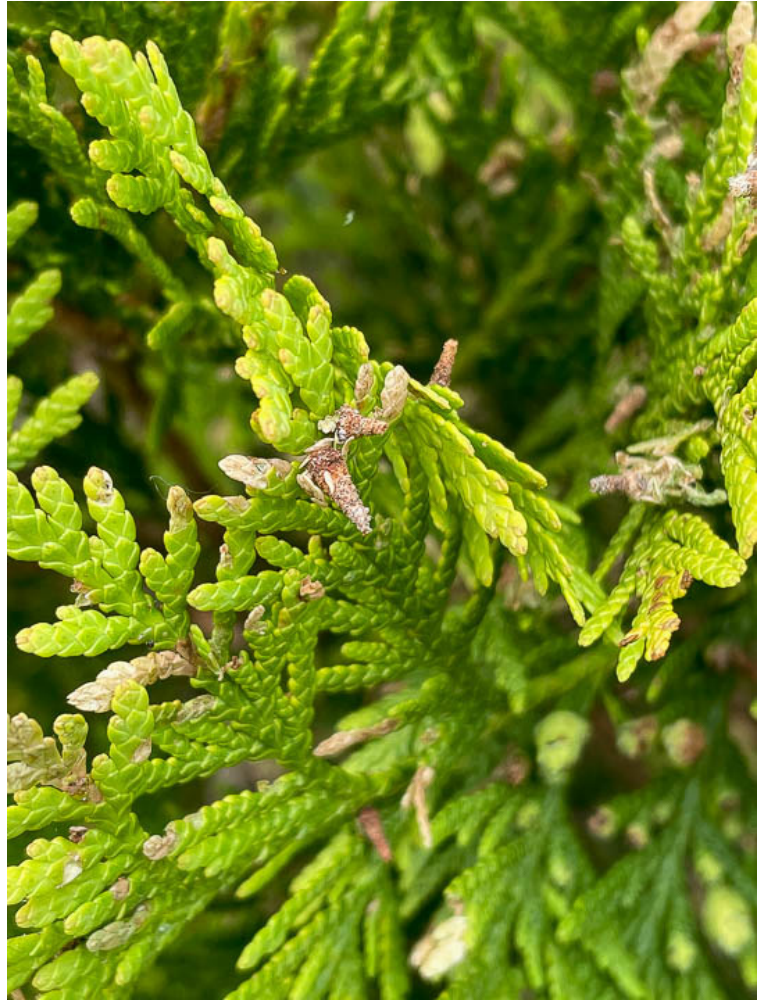
**Control:** If possible, prune out webbed terminals. Bt, horticultural oil, or insecticidal soap can be used for early instars. There are many predators and parasites that help keep this native pest at manageable levels.



Look for early instars of just hatched fall webworms  
Photos: Marie Rojas, IPM Scout

## Bagworm Hatch

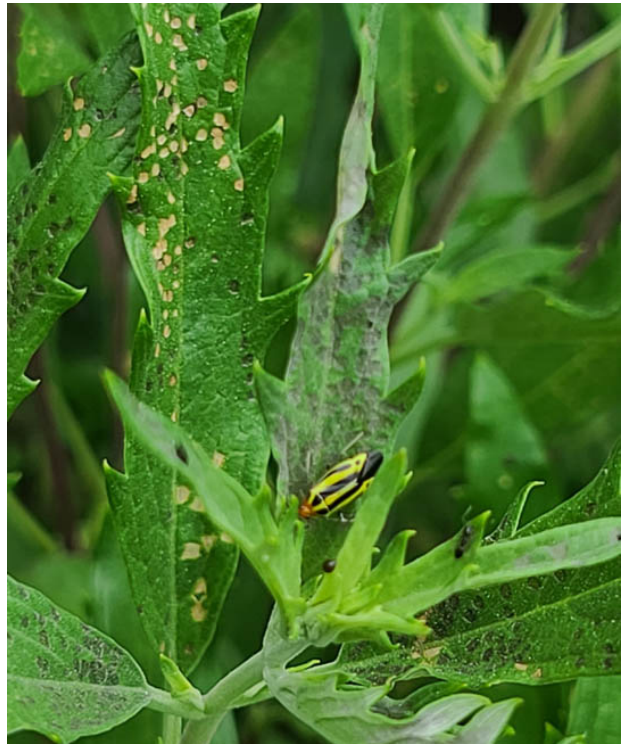
Chris Kanarr found just hatched bagworms on June 2 outside of Federalsburg feeding on 'Yellow Ribbon' Arborvitae. Check infested trees for egg hatch before treating. Monitor plants such as arborvitae, spruce, and Leyland cypress. Bagworms are also found on deciduous trees and herbaceous plants, but the damage is usually less evident. Bt (Dipel, Caterpillar Attack), Spinosad (Conserve) or Acelepyrn will all give good control of young larvae



It is best to control bagworms when small  
Photo: Chris Kanarr

## Four-lined Plant Bugs

Ben Morris, Savatree, found four-lined plant bugs and damage this week. There is only one generation per year early in the season. Adults are laying eggs in woody plant material at this point.



Four-lined plant bugs are finishing up their feeding activity for the season  
Photo: Ben Morris, Savatree

## White Pine Weevils

Marie Rojas, IPM Scout, found white pine weevils inside the tip of *Pinus flexilis* 'Cesarini Blue' on June 1 in Frederick County. The larvae are causing the tips of white pines to flag. White pine weevils commonly infest pines and spruces. Larvae pupate in late July within the infested terminal. Adults emerge in late July and August and overwinter in leaf litter. There is one generation per year.

**Control:** At this time of year, prune out flagging terminals. Next year, monitor for adult activity in March and April. To prevent damage the insect growth regular, Dimilin, can be applied to terminal growth when the adult activity is noted among conifers.



The feeding by white pine weevil larvae causes plant tips to flag  
Photo: Marie Rojas, IPM Scout

## Azalea Bark Scale

Elaine Menegon, Good's Tree and Lawn Care, found azalea bark scale on azaleas and rhododendrons on May 27 in Elizabethtown, PA. Look for sooty mold on leaves and yellowing leaves. First generation crawlers are active in Maryland in May and June. If the population is low and damage is minimal, look for beneficial insects which do a good job controlling this insect. In summer when crawlers are active, you can use a summer rate (0.5 – 1.0%) of horticultural oil for control.



Beneficials often control azalea bark scale  
Photo: Elaine Menegon, Good's Tree and Lawn Care

## Periodical Cicada Oviposition Sites

Marie Rojas, IPM Scout, is reporting finding interesting "stuff" inside the old cicada-damaged areas. Marie found woolly elm aphids on the old cicada wounds of *Ulmus* 'Jefferson' - the leaf aphids decided to congregate along the old cicada wound sites. She also found flagging/snapping damage from old cicada ovipositing.



**Woolly elm aphids present in old periodical cicada oviposition wounds**  
Photo: Marie Rojas, IPM Scout

## Black Knot on Plums and Cherries

By: D.L. Clement

Black knot is caused by the fungal pathogen *Apiosporina morbosa*, also known as *Dibotryon morbosa* in older literature. It usually has a two-year life cycle and causes rough, blackened, elongate galls, (knots), on twigs and branches of plums and cherries. Early gall symptoms appear in the fall as swellings on young twigs and branches. These swellings overwinter and are composed of a mixture of green host tissue and fungal growth. The young galls will produce velvety olive-green asexual spores on their surface during the spring and early summer. The importance of these spores is unknown. The galls will continue to harden and turn black as the season progresses towards fall and winter. The fungus overwinters in the blackened galls and produces sexual spores during the next spring. These spores infect green tissue and wounded older wood in the spring and early summer. New shoots are highly susceptible, and can be infected after budbreak, and throughout active shoot elongation. Most infections are thought to occur just before bloom, or after petal-fall. Wet spring weather is favorable for disease since rain is important for discharging the spores from the knots. If the twig, or branch remains alive the black galls will become perennial and continue to elongate and expand. If the gall dies it may be colonized by secondary fungi that can give it whitish or pinkish color.

**Management:** Most ornamental cherries are moderately resistant while ornamental plums are more susceptible to infection. Occasionally, apricots and peaches can also be infected. Pruning and sanitation are essential to disease management. Infected twigs and branches should be pruned before budbreak and cuts should be made at least 6-8" below any visible galls. Cultural methods include removing any wild plums, or cherries in

surrounding woodlots. These wild trees are usually highly susceptible to black knot and can be important sources of inoculum. Replace highly susceptible cultivars in the landscape with more resistant choices.



**Black knot taking up residence in old slits on *Prunus mume***  
Photo: Marie Rojas, IPM Scout

## **Change to Professional Fertilizer Applicator (PFA) Regulations**

COMAR Regulations have been revised from a fiscal year basis to a calendar year basis. PFA certification normally due for renewal by June 30, 2022 will be extended to 12/31/22. Information on the renewal process will be sent around November 1, 2022. Additional information is available at <https://mda.maryland.gov/pages/fertilizer.aspx>.

The current 3-year cycle (2021 – 2023) for CEUs is still in effect, and will also be extended to 12/31/23. Be sure to have a total of six credits in order to be able to continue your certification prior to that date.

## **Plant Bug on Red Maple**

Marie Rojas, IPM Scout, found plant bugs feeding on the new growing tips of *Acer rubrum*. She noted that they had been found last year as well, but the species was not identified. Marie is finding them doing a lot of damage on trees in Gaithersburg this week. Their damaged areas from feeding drop out, leaving many tiny holes in the new leaves.

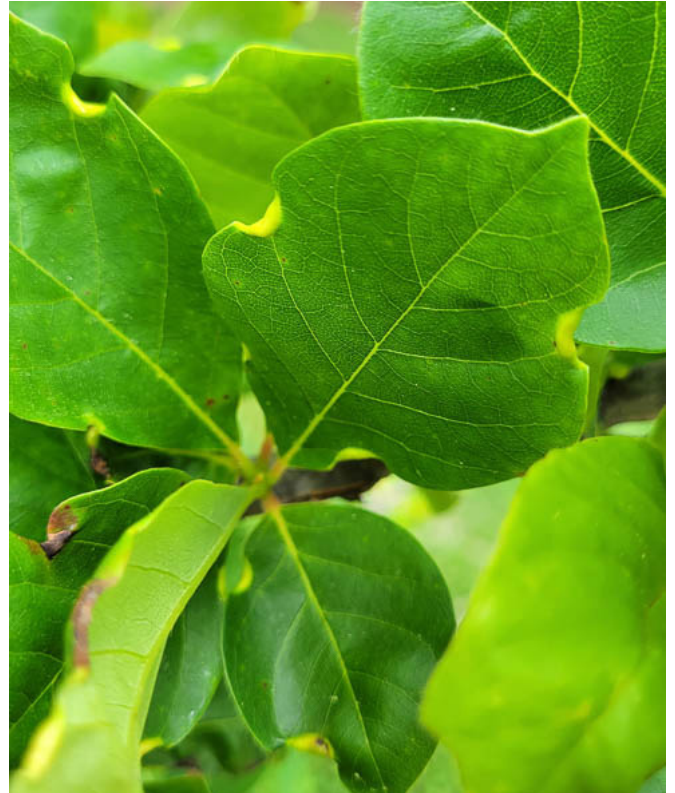


**Plant bug adult and feeding damage on maple**  
Photo: Marie Rojas, IPM Scout

## Aphids on Black Gum

Marie Rojas, IPM Scout, found a leaf-curling aphid, *Phylloxera nyssae* on *Nyssa sylvatica*. Marie noted that you can see the eggs inside the leaf margin under the microscope.

Mike Raupp, UMD, featured them in a [2020 Bug of the Week](#).



**Aphids congregate and feed within the marginal galls**  
Photo: Marie Rojas, IPM Scout

## Slow Moving Vehicles

By: Stanton Gill

Rain and warm weather has made weeds and grass shoot up in the last weeks. Unfortunately, I see Zero turn mowers, small tractors, and other small equipment with drivers moving the vehicles out onto the roadways, creating very dangerous situations. I have seen cars almost hit several of these off-road, slow-moving vehicles in the last week. Some are homeowners, but I have seen this with commercial lawn care companies and small farms.

Maryland Transportation Code 21-805 states that SMV signs are only for use on vehicles that move slower than 25 miles per hour. This important hazard prevention instrument protects the operators of slow moving equipment by warning other motorists as they approach from behind.

If you are caught there is a Maryland fine. If you are killed driving without a Orange slow moving vehicle sign, you are to blame.

## Two Pulvinaria Scales Producing Egg Sacs and Start of Crawlers

By: Stanton Gill

Cottony camellia scale (*Pulvinaria floccifera*), also called cottony taxus scale, is a pest of camellia, yew, and holly that is producing white ovisacs this week in many locations in Maryland. Marie Rojas, IPM Scout, has found crawlers on 'Dragon Lady' hollies in Beallsville. If you see crawlers in your area, let me know at [Sgill@umd.edu](mailto:Sgill@umd.edu).

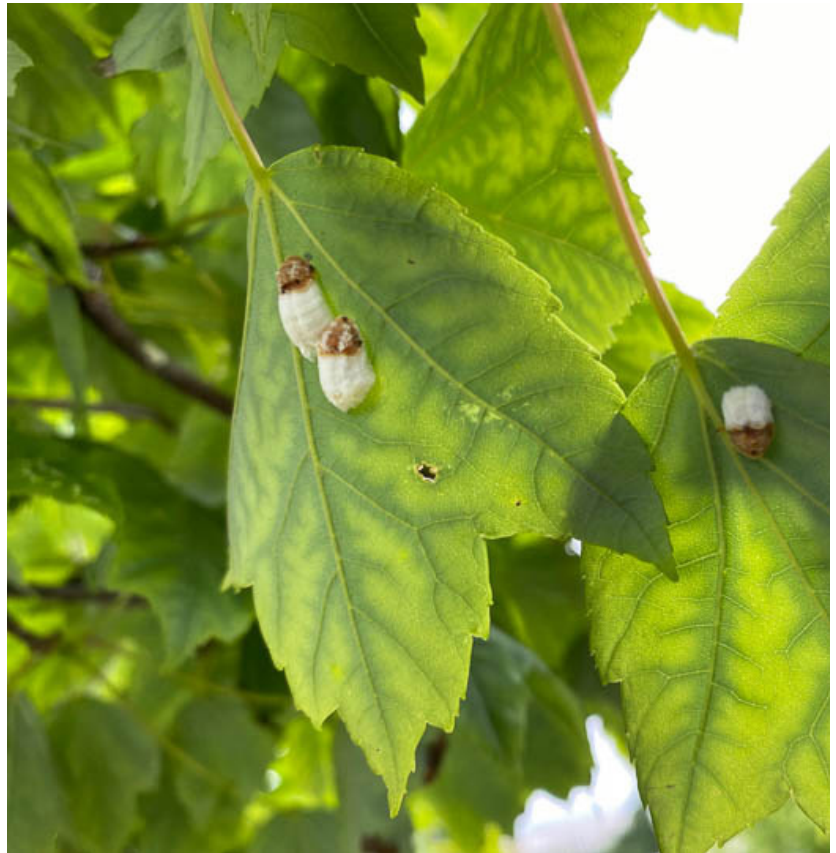
The cottony maple scale, *Pulvinaria innumerabilis*, is one of the largest and most conspicuous soft scale insects that attacks ornamental plants. Its favored host is silver maple, *Acer saccharinum*. A large number of other

deciduous trees are also attacked including other species of maple, such as boxelder, *A. negundo*; basswood, *Tilia americana*; white ash, *Fraxinus americana* ; dogwood, *Cornus spp* ; locust, *Robinia spp.* ; hackberry, *Celtis spp.*; sycamore, *Platanus spp.* ; birch, *Betula spp.*; elm, *Ulmus spp.*; willow, *Salix spp.* ; and poplar, *Populus spp.* We received electronic pictures from the Capitol grounds of maple foliage with this conspicuous scale producing its ovisacs on Tuesday.

**Control:** These scales are controlled with systemic insecticides such as Dinotefuran, Altus or Mainspring. Our standard Distance or Talus insect growth regulators will work when the crawlers hatch in your area.



**Cottony camellia/Taxus scale crawlers on Ilex 'Dragon Lady'**  
Photo: Marie Rojas, IPM Scout



**Cottony maple scale egg masses**  
Photo: Emily Mueller, Architect of the Capitol

## If Your Customers Need to Move Nuisance Wildlife

Visit this site: [https://dnr.maryland.gov/Wildlife/Pages/plants\\_wildlife/wildlifeproblems.aspx](https://dnr.maryland.gov/Wildlife/Pages/plants_wildlife/wildlifeproblems.aspx)

**Please note:** Homeowners are strictly prohibited from trapping and shooting wildlife outside regulated seasons, unless the animal has been actively causing property damage or is an obvious threat to public health and safety. If this course of action is taken, homeowners must obtain a free landowner trapping permit by calling 1-877-463-6497. Permittees must comply with permit requirements and local firearms restrictions. Relocation of rabies-vector species (raccoon, skunk, and fox) is prohibited under the [Code of Maryland Regulations \(COMAR\) 08.03.15.24](#). This restriction is necessary to prevent human-assisted spread of this disease and is an important component of the state's nuisance wildlife control program.



## Japanese Maple Scale – One Nasty Armored Scale

By: Stanton Gill

The Covid situation for the last 2.5 years has been a “boom” situation for installing new plant material in the landscape. Unfortunately, some less than discerning landscapers are installing plant material with Japanese maple scale (*Lopholeucaspis japonica*) populations established from the supplying nursery. Once introduced into a landscape, this scale will damage a very wide range of plant material. In 2022, we are receiving a dramatic increase of plants samples infested with this scale. Degree days at start of this crawler period is 806, and they are 1144 at the peak.

With the hot weather last week, we accumulated degree days rapidly and have reached crawler period for this scale in some areas. You want to be on top of this one since it has a very long crawler emergence period and feeds on so many different species of plants. Distance or Talus mixed with 0.5% horticultural oil are a couple of good materials for control.



Look for hatching of purple Japanese maple scale crawlers

## Herbicide Damage

Ginny Rosenkranz sent in this photo of an American dogwood with likely 2,4-D damage. Ginny noted that the "leaves are always late coming out and I think that the weekend we went from 75 to 90 was a victim of the lawn sprayed for dandelion control."



Likely herbicide damage on dogwood  
Photo: Ginny Rosenkranz, UME

## Insects on Taxus

Heather Zindash, found various insect activity on *Taxus x media* this week. There was heavy sooty mold and webbing on the interior and back (against a fence) of the plant. Heather also found an unusual mite and mealybugs. There were many spiders feeding on these insects and creating webs around the high populations.

Lecanium scale, which produces honeydew on which the sooty mold grows, was also on this plant. Both eggs and crawlers were present. Talus or Distance are good control options.



Mites (left) and a mealybug (right) found on *Taxus x media*  
Photos: Heather Zindash, IPM Scout



Lecanium scale (eggs and crawlers) found on *Taxus x media*  
Photos: Heather Zindash, IPM Scout

## Problems with Peaches and Plums

By: Stanton Gill

Several landscapers are managing fruit plantings for their customer's home fruit production. We are receiving several pictures of plums and peaches with a gummy sap forming on the skin of edible plums and peaches. This is damage from the larvae of oriental fruit moth *Grapholita molesta*. We put in a picture last week and it generated several inquiries for more information on this pest.

Oriental fruit moths have four to five generations per year in Maryland, with the first and last two generations doing the bulk of the damage. They overwinter as larvae in silken cocoons on the tree or on the ground, and they pupate and begin to emerge as adults back in April, shortly before peach trees bloom. These females lay up to 200 eggs, primarily during May. We are seeing the damage from the larvae of this first generation that has successfully bored into the peach or plum. The fruit produces a flow of juice in an attempt to expel the larva. Expect more damage to show up later as the fruit continues to swell and enlarge from the overlapping generations this summer. The succeeding overlapping generations extend into September.

The first generation was back around 200 to 350 degree-days. The second generation, coming up, is going to be around -1,150 to 1,300 degree days; and for the third generation, 2,100 to 2,500 degree-days for peaches.



**Oriental fruit moth damage on peaches**  
Photo: Stanton Gill

Material such as Spinosad (Delegate – brand named for fruit. Spinosad is an insecticide based on chemical compounds found in the bacterial species *Saccharopolyspora spinosa*.) Altacor (contains the active ingredient **chlorantraniliprole**) is a systemic material that is very effective for oriental fruit moth larva control.

For orchards such as mine, we use Mating disruption materials (Isomate – brand name) plastic hand-applied dispensers can be used to manage this pest. Pheromone release time remain effective for at least 90 days. This method only works if you have 5 – 10 acres of fruit growing. Not really practical for home orchards and rather expensive.

Mating disruption relies on the insect's own mate-finding abilities to prevent or greatly reduce the number of successful unions between male and female moths. By impeding the number of successful matings, fewer eggs are laid, leading to fewer larvae (worms) and less chance of fruit injury. When female oriental fruit moth prepares to mate, they let the males know by releasing a chemical called pheromone, which is active at extremely low concentrations and specifically attractive to just male oriental fruit moth. This "scent" floats through the air as a plume that the male finds with the use of his antennae, locating the female and mating with her.

Mating disruption products work by adding large quantities of synthetic pheromone to the orchard in a manner that either outcompetes calling females for the attention of males or impairs the ability of the male to respond to the pheromone in a normal manner. Disruption of oriental fruit moth can occur via either of the two principal mechanisms, depending on the release rate of pheromone from each dispenser. In both scenarios, control is achieved because males cannot locate females and mating gets disrupted.

## Beneficial of the Week

By: Paula Shrewsbury

### Cup plant (*Silphium perfoliatum*), aphids (*Uroleucon* sp.), and natural enemies (part 1) - Long-legged flies

As you may guess I spend a lot of time looking at plants and the insects associated with plants. This week as I was searching my cup plant, *Silphium perfoliatum* (Asteraceae), and on the underside of the leaves I found profuse densities of red aphids. In researching this aphid, I determined it was a *Uroleucon* sp. of aphid (Aphididae). Gary Miller, an aphid expert from ARS USDA, then identified it to species as *Uroleucon ambrosiae*. So, what do you get when you put an herbaceous flowering perennial and a relatively specialized aphid together in a landscape? You have a **beneficial insectary plant**, which is a plant - herbivore system that supports a diversity of natural enemies. The idea is that the plant supports the herbivore, and the herbivore attracts a diversity of natural enemies, many of which are often generalists. When those predators and parasitoids knock back the aphid population, they should then move to other plants in the habitat in search for other sources of food (ex. other insects and/or pollen and nectar).

First, let's discuss the **cup plant, *Silphium perfoliatum***. *Silphium* is an herbaceous perennial in the Asteraceae family that is native to most of the U.S. east of the Rockies. It is a very tall plant (4-8' is reported, mine is 8-9') so you need to have the right location for it to work aesthetically in the garden. My nickname for this plant is "monster plant". It is a mid-late season (July – September) bloomer with clusters of bright yellow flowers (~3-4" diam.) at the tops of long stems. This

plant is sunflower-like (same family) in its habit and appearance. *Silphium* has large opposite leaves (up to ~12" long) going up the stems. The leaves attach at their base to the sturdy stem creating a "cup" (hence the common name of cup plant) that collects water when it rains. This water resource is used by song birds that drink water from the cups, and later in the season may feed on seed from the flowers. I have also seen predatory wasps drinking from the cups. When the flowers are in bloom, the plant literally hums from the sounds of the many insects feeding on the nectar and pollen. I have seen yellow and black tiger swallowtails, monarchs, skippers,



Red aphids, *Uroleucon ambrosiae*, on the underside of a *Silphium* leaf. Note the white predatory syrphid (flower) fly egg (highlighted in black circle)

Photo: M.J. Raupp, UMD



*Silphium perfoliatum*, cup plant, provides water, floral and prey resources used by a diversity of insects and birds. Note the height (reported 4-8', these are close to 9') and be sure to find the right aesthetic location for these tall, dramatic plants. Click here to see a video of all the insect activity on this cup plant.

Photo: P.M. Shrewsbury, UMD

and cabbage butterflies. *Silphium* is reported to be the host food for caterpillars of silvery checkerspot, Gorgone checkerspot, and bordered patch and painted lady butterflies. Bees are also plentiful on this plant. I have seen honey bees, bumble bees, halictid bees, and leaf cutter bees. Other bees reported on this plant include sweat bees, small carpenter bees, and digger bees. In addition to these benefits to supporting biodiversity, *Silphium* also serves as a beneficial insectary plant ([click here to see a related YouTube](#)).



**This adult long-legged fly shows the characteristic metallic coloration, long legs, and single pair of wings. Although hard to see, this fly has the unidentifiable remains of lunch in its mouth.**

**Photo: M.J. Raupp, UMD**

The **red aphid, *Uroleucon ambrosiae***, is a common herbivore on *Silphium* and is also found on Rudbeckia. This aphid is red in color with long black antennae and a pair of obvious black cornicles coming off of its back end (see image). The legs are lighter colored near the body, but mostly black. Adults are ~2 mm in length and during the season all individuals are females that give live birth to young. These aphids are an abundant food source that attracts a diversity of natural enemies.

The combination of *Silphium* and *Uroleucon* together make *Silphium* an excellent beneficial insectary plant that is known to attract natural enemies that include birds, several species of parasitic wasps, larger predatory wasps, minute pirate bugs, soldier beetles, predatory plant bugs, lady beetles, lacewings, long-legged, dance, and syrphid flies, and spiders. Wow!

This week I observed numerous **long-legged flies (a.k.a. Dolichopodids)** (Dolichopodidae) flying around and landing on the *Silphium*. It is not unusual to see these small (~ 1/8 – 1/4”) metallic long-legged flies zipping around our woody and flowering ornamental plants. When you watch them, it does not seem like they are really doing much. However, these beautiful little flies are actually predators. The adults of these “true flies” are often metallic green, blue or copper-colored depending on species. Their abdomens are often elongate and tapered at the end and they have long thin legs. Like many flies they have large eyes and “hair-like” antennae. They are cosmopolitan and occur world-wide, and there are about 7,000 described species. Dolichopodid flies have been around a long time (up to 145 million years ago) and specimens are frequently found in amber. They occur in many managed and natural habitats, especially near swamps and streams, and in woodlands and meadows. Adult flies’ mate after elaborate behaviors by the male to impress the female. One reported behavior involves the male showing off his legs to the female. The other day on the *Silphium*, I saw a female Dolichopodid on a leaf with 3 males flying and landing around her. The males appeared to be performing some sort of pre-mating dance-like behavior, and then would try to mate with her. The larvae, which are legless maggots, are found in varied habitats such as water, mud, decaying wood and grass stems. Little is known about the feeding habits of larvae but some are believed to be predaceous, others are leaf miners in grass stems. When larvae are ready to pupate, they build a protective cocoon where they spin soil particles and plant debris together. Adults are known to be predators of not only aphids, but also thrips, lace bugs, larvae of small insects, and mites. I have only been fortunate enough to actually see an adult long-legged fly feeding on prey a few times, once feeding on an azalea lace bug adult, the other times the prey was beyond recognition (see image). So, the red *Uroleucon* aphids may attract the dolichopodids to the plant, but they will forage and hunt other insects besides the aphids. In addition to being beautiful (for a fly anyway) and abundant, they also contribute to biological control in our managed ecosystems.

## Weed of the Week: Yellow Woodsorrel

By: Kelly Nichols

Yellow woodsorrel, *Oxalis stricta*, is a perennial weed found throughout the United States in landscapes, turfgrass, and even in containers. It has yellow flowers which occur in clusters with five petals per flower, on long stems arising at leaf axils. Leaves are alternate along the stem, have a long petiole, and are divided into three heart-shaped small leaflets. Leaflets have hairs along the outer edge. Roots of yellow woodsorrel are fibrous and produce long rhizomes. Stems grow laterally more than upright, but can reach twenty inches in height. Fruit is a flat-sided, somewhat rounded capsule which can be up to 0.75 inches in length. The seed found inside can be ejected more than ten feet from the point of origin.

Cultural control of yellow woodsorrel can be helped with the proper monitoring of soil pH and appropriate use of nutrients, either organic or synthetic. Keeping the soil shaded will lessen weed seed germination in general and helps with this plant. Good vigorous turf growth is very useful. *Oxalis* grows under many different conditions, but does best in moist, fertile soils and full sun. Chemical control of yellow woodsorrel can be obtained in nursery settings using Barricade, Gallery or Goal. Remember in turf, mow high, and keep the sunlight from reaching the soil and lower-growing plants. In turfgrass, pre-emergent control can be obtained in ryegrass, fescue, and Kentucky bluegrass using isoxaben (Gallery), pendimethalin, and others. Post emergence in turf can be obtained using dicamba (Banvel, Clarity, Vanquish). Remember with dicamba to be mindful of the surrounding areas and take precautions to avoid drift.



**Figure 1: Yellow woodsorrel growing in a container.**

**Photo: Chuck Schuster, UME Ag Agent, Emeritus**



**Figure 2: The fruit of yellow woodsorrel is a flattened capsule. The red arrow highlights the seed heads.**

**Photo: Chuck Schuster, UME Ag Agent, Emeritus**

## Plant of the Week: Oakleaf Hydrangea

By: Ginny Rosenkranz

Oakleaf hydrangea, *Hydrangea quercifolia*, is a native deciduous multi-stemmed shrub that can grow 8-10 feet tall and wide. From June through summer, the snow cone shaped flower clusters or panicles are filled with green buds that open to single petal pure white flowers, which mature to pink or even red. The flowers cover the plants, inviting many butterflies and other pollinators to the hydrangea. The faded flowers can stay on the plants through the winter giving structure to the gardens. The leaves start out in early spring as light green and fuzzy. They expand to bright dark green 4 – 12 inch deeply lobed leaves, which fill out the structure of the plants. In the autumn, the leaves can turn shades of red and burgundy, glowing in the sunlight. Hardy from USDA zones 5-9, oakleaf hydrangea thrives in moist well-drained soils and flowers best in full sun. Like many hydrangeas, oakleaf blooms on the previous year's growth. In the winter, the dark brown stems exfoliate, giving the plant 4 seasons of beauty. These large shrubs can become an attractive informal hedge or an interesting specimen plant. The major pest is the white-tailed deer with the occasional visit by aphids and spider mites, leaf blight and powdery mildew.



Oakleaf hydrangeas provide four seasons of interest  
Photos: Ginny Rosenkranz, UME

## Degree Days (as of June 1)

Aberdeen (KAPG)	637
Annapolis Naval Academy (KNAK)	788
Baltimore, MD (KBWI)	845
College Park (KCGS)	729
Dulles Airport (KIAD)	805
Ft. Belvoir, VA (KDA)	835
Frederick (KFDK)	693
Gaithersburg (KGAI)	729
Gambrills (F2488, near Bowie)	790
Greater Cumberland Reg (KCBE)	682
Martinsburg, WV (KMRB)	650
Natl Arboretum/Reagan Natl (KDCA)	983
Salisbury/Ocean City (KSBY)	899
St. Mary's City (Patuxent NRB KNHK)	1007
Westminster (KDMW)	876

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

## 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 **637 DD** (Aberdeen) to **1007 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.

- Twospotted spider mite – egg hatch (**627 DD**)
- Cottony camellia / taxus scale – egg hatch / crawlers (**649 DD**)
- Mimosa webworm – larva, early instar (1<sup>st</sup> gen) (**674 DD**)
- Juniper scale – egg hatch / crawlers (**694 DD**)
- Calico scale – egg hatch / crawlers (**765 DD**)
- Oak lecanium scale – egg hatch / crawlers (**789 DD**)
- Rhododendron borer – adult emergence (**815 DD**)
- Japanese maple scale – egg hatch / crawlers (**829 DD**)
- Dogwood borer – adult emergence (**830 DD**)
- European elm scale – egg hatch / crawlers (**831 DD**)
- Cottony maple scale – egg hatch / crawlers (**872 DD**)
- European fruit lecanium scale – egg hatch / crawlers (**904 DD**)
- Cryptomeria scale – egg hatch / crawlers (**937 DD**)
- Azalea bark scale – egg hatch / crawlers (**957 DD**)
- Japanese beetle – adult emergence (**1056 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.



## Conferences

### 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](#)

Contact: Kelly Nichols, 301-590-2807, [kellyn@umd.edu](mailto:kellyn@umd.edu)

### June 17, 2022 (Virtual)

Contact: Ginny Rosenkranz, [rosenkranz@umd.edu](mailto:rosenkranz@umd.edu)

[Schedule and Registration](#)

### June 24, 2022 (Virtual)

Turf Program

Contact: [Mark Carroll](#), University of Maryland

### June 30, 2022

Greenhouse Biological Control Conference

Location: Maritime Institute, Linthicum Heights, MD

[Registration](#) is now open.

Contact MNLGA at 410-823-8684 with any questions.

### July 28, August 4, and August 11, 2022

Drone Training Program

Details coming soon

### UMD ADVANCED LANDSCAPE IPM LAB-FIELD COURSE (in-person)

Dates: July 28 and 29, 2022 (8:00 a.m. – 4:00 p.m.)

Location: Plant Science Bld, University of Maryland, College Park, MD

Description: This 2-day course will consist of both field walks around campus and activities in the lab. Sessions will focus on diagnostics of plant disease and insect problems, and pest and natural enemy identification using live and other specimens, and interactive activities. Labs will be run by instructors (*Drs. Paula Shrewsbury, Mike Raupp, Karen Rane*).

**For registration and course details: Email Amy Yaich at [umdentomology@umd.edu](mailto:umdentomology@umd.edu)**

### MDA Pesticide Container Recycling Program Starts June 2022

For details, see the brochure at [https://mda.maryland.gov/plants-pests/SiteAssets/Pages/pesticide\\_regulation/2022%20Recycling%20Brochure.pdf](https://mda.maryland.gov/plants-pests/SiteAssets/Pages/pesticide_regulation/2022%20Recycling%20Brochure.pdf)

**Commercial Ornamental IPM Information**  
**extension.umd.edu/ipm**

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

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