

In This Issue...

- Weather and disease update
- Boxwood problems
- Controlling horseweed
- Fall webworm
- Drainage in nurseries
- Fruit thinning
- Zelkovas and crape myrtles
- Deer damage
- Tick activity
- Chemical company change
- Aphids on cherries
- Update on scale insects
- Ambrosia beetles
- Potato leafhoppers
- Four-lined plant bugs
- Powdery mildew
- Stinkhorn fungi
- Gypsy moth caterpillars
- Pine spittlebugs

- Beneficial of the Week**
- Weed of the Week**
- Plant of the Week**
- Phenology**
- Degree Days**
- 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 sklick@umd.edu

Coordinator Weekly IPM Report:

Stanton Gill, Extension Specialist, IPM for Nursery, Greenhouse and Managed Landscapes, sgill@umd.edu. 301-596-9413 (office) or 410-868-9400 (cell)

Regular Contributors:

Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant
 Disease Information: Karen Rane (Plant Pathologist), David Clement (Extension Specialist), and Joe Roberts (Plant Pathologist for Turf)
 Weed of the Week: Chuck Schuster (Extension Educator, Montgomery County)
 Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
 Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
 Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Rain, and More Rain = Diseases in Hyper-Drive

By: Stanton Gill

In early May, we had a warm period with rain storms. Kari Peter, Extension Pathologist, Penn State Extension, warned that it was fire blight weather and that rust and apple scab spores were being picked up in large numbers at the Biglersville Experiment Station. With fireblight, fortunately most pears had finished blooming so the chance of pollinators carrying the bacterial disease to flowers was pretty slim. The pears slipped by without too much damage in 2018, at least so far.

It is a different story for apples and crabapple trees. They were in full bloom during the period of “perfect weather for fire blight”. I picked up fire blight on several cultivars of my apples last weekend. The rain storms this week will spread this disease from tip growth, where the spores entered via pollinators. The bacterial ooze is present this week and will carry the disease into larger branches. If it dries out next week, then prune at least 18” below each infected branch. Pathologists suggest dipping pruning shears in alcohol between cuts.

Concerning the rust and scab disease, the rainy weather of the last 2 weeks made infection rates skyrocket. We are seeing apple scab on many cultivars of apples, including some listed as scab resistant. Disease pressure is very high this season. It was hard to keep protectant fungicide sprays on foliage since the heavy rains easily wash off the fungicides, even when using a good spreader sticker. Be prepared for customers to notice rust spotting on foliage and fruit and scab spotting on crabapples and apples during the summer.

Boxwood Blight Look-alike

By: Karen Rane

Take a look at this photo of dying leaves (some with dark lesions!) on a boxwood. Is this boxwood blight?



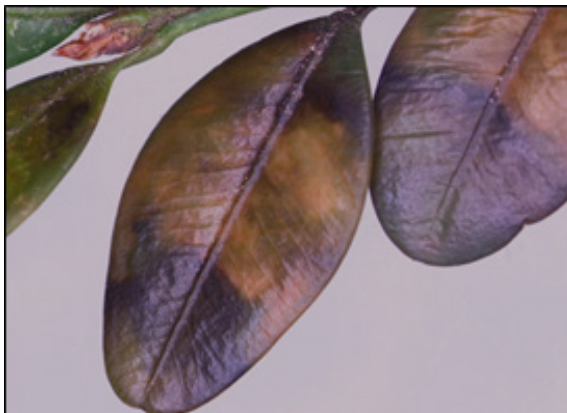
Here's a close-up of leaves on a twig, showing white fungal growth on the lower leaf surface:



Sure had me worried – this boxwood is in my yard, and my first thought was – Oh No – boxwood blight!!



So, like a diagnostician should, I brought a sample in to my lab and checked it out. Here's what I saw under the dissecting microscope:



Same leaves – upper surface (left) and lower surface (right)
Boxwood Photos: Karen Rane, UME

I was relieved to see that the lower surfaces of the leaves (every one of the discolored ones) were separated from the leaf, and in some cases ripped open. This is severe boxwood leafminer damage, with the common fungal pathogen *Volutella* causing the white fungal growth (it turned the more typical salmon color two days after these photos were taken) – NOT Boxwood blight! The moral of the story? Plants and pathogens don't read our extension literature – they don't know what they are "supposed" to look like- and sometimes symptoms can be deceiving. In this case, I was happy that it was not the dreaded boxwood blight (caused by *Calonectria pseudonaviculata*), but I won't let down my guard, and neither should you. Just because this article shows dark lesions caused by leafminer, don't assume all dark lesions on boxwoods are due to this pest. Investigate further, send a sample to a diagnostic lab, make sure you know with what you are dealing so you can use the right management practices. Test, don't guess!

The REAL Boxwood Blight:

For comparison with the previous information, here are two photos of boxwood blight symptoms.



Leaf lesions of boxwood blight, caused by *Calonectria pseudonaviculata*
Photo: D. Clement, UME



Dark stem lesion on green stem, caused by the boxwood blight fungus
Photo: D. Clement, UME

For more detailed information on boxwood blight, check out our [fact sheet](#), posted on the IPMNet website.

Controlling Horseweed

By: Jeff Derr, Virginia Tech

Horseweed (*Conyza canadensis* or *Erigeron canadensis*), often called marestail, is an annual weed in the composite family. Although we often do not notice this weed until spring, most of the germination occurs in the fall. Fall-germinated horseweed will survive the winter as a rosette, then grow tall in spring, when it flowers. Due to a plume, the seed will travel a considerable distance in the wind. Horseweed will start to germinate in early September so if you are going for strictly preemergence control, the herbicide needs to go on before September. A late summer (late August) application of simazine (Princep, etc) is an inexpensive option for preemergence horseweed (marestail) control in tree production. Alternatives include Gallery, Marengo, and SureGuard.

An alternative control strategy is to go later with a preemergence/postemergence combination. Horseweed has developed resistance to glyphosate (Roundup, others). If your horseweed is resistant to glyphosate, you will need to look at other postemergence control options. For the postemergence herbicide, Finale is one option, and one could add simazine or one of the other preemergence herbicides listed above for residual control. In conifers and certain shade trees, Lontrel would be an option for postemergence control. Best to treat when horseweed is small and actively growing. Fall cultivation (say late October) is also an option for emerged horseweed.



UMD-IPMnet
Horseweed, also called marestail, has developed resistance to glyphosate

Fall Webworm

Olivia Leseman, Savatree, found first instars of fall webworm on May 31 in Great Falls, VA. 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. 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 below damaging levels.



The first generation of fall webworms are hatching this week
Photo: Olivia Leseman, Savatree

Water Drainage in Nurseries

From Marie Rojas, IPM Scout: “I thought this was interesting. We wonder sometimes why ambrosia beetles hit one particular tree/area or why a certain tree dies without any obvious signs of trouble. Look at this row of holes at a nursery - the first hole is empty/dry, whereas the next couple of holes are completely filled with water! I see this situation a lot in nurseries where they’ve removed trees, but haven’t filled in the holes. Interesting how something about the soil (compaction? rocks?) can make or break the drainage!”



Holes where trees have been removed show variable drainage in a nursery
Photo: Marie Rojas, IPM Scout

Fruit Thinning

By: Stanton Gill

For those of you with customers who are growing fruit, you will need to thin the fruit in the next 2 weeks. Apples and pears fruit are popped off, leaving 20- 50% of the set fruit. If you do not do this pruning, then the fruit will be small and the tree will often go into biennial bearing. Peaches and nectarines are thinned so you have a fist’s distance between fruit. After you thin, you will see remaining fruit increase in size rapidly.

Zelkova and Crape Myrtles

By: Stanton Gill

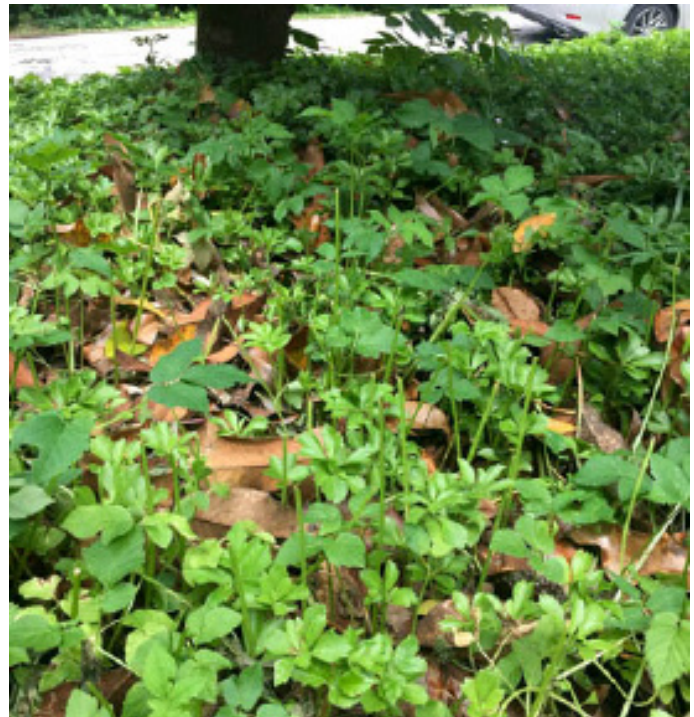
Last week, I visited a nursery that had several large zelkovas with major branch dieback. There was cracking of the bark at the base of the trees and several branches were dying back. There was some activity from *Agrilus carpinus*, a beetle that we saw damage zelkova eight years ago. We have not seen activity from this insect in recent years. It makes a D-shaped exit hole very similar to the emerald ash borer, which is in the same genus. Since then, I received three emails that were sent with photos of zelkovas with large branches dying out. I visited one site in Columbia near the Wegmans Store that had a line of zelkovas with branches dying back. Each tree had cracking on the branches or trunk.

The extremely extended cold period in January apparently did more damage than many realized. It appears the zelkovas in several sites suffered major winter damage to branches and trunks. While I was visiting another nursery, I saw three very large 'Natchez' crape myrtles that had not leafed out. They had a couple of crape myrtles that had leafed out, but did not look very perky. The dieback on crape myrtles caused by the January weather has not been consistent.

If you are seeing crape myrtles or zelkovas dying back, please send along pictures to me at Sgill@umd.edu.

Deer Damage

We are receiving reports that deer damage is more extensive this year. Mark Schlossberg, ProLawn Plus, Inc., found a cherry tree and pachysandra with deer damage in Baltimore City on May 30. Jonathan Kays, UME, published a bulletin '[Managing Deer Damage in Maryland](#)' that includes information on repellants, deer fencing, and the susceptibility of plants to deer feeding.



Deer damage seems to be heavier this year. A cherry tree and pachysandra are being fed upon by deer in Baltimore City.

Photos: Mark Schlossberg, ProLawn Plus, Inc.

High Tick Activity

By: Stanton Gill and UME-HGIC

We were working on a root aphid project in Hartford County on Tuesday when a tick wandered into our test area. The high temperatures and high humidity is perfect weather for tick activity. We are seeing both blacklegged ticks (deer ticks) and lone star ticks active in Maryland landscapes at this time of year. The good news is that most ticks are not born carrying disease-causing pathogens. They acquire pathogens by feeding on infected wildlife such as deer and mice. If a disease-infected tick bites you, it takes 24-48 hours to transmit the pathogen, that is, if the tick remains attached.

Blacklegged ticks are mostly found in deciduous forest and are the primary carrier of Lyme disease. Adult ticks feed during the winter on white-tailed deer. The larval and nymphal ticks are found throughout the summer and feed on small mammals such as mice, chipmunks, and voles. The preferred host is the white-footed mouse. This tick can also spread anaplasmosis, babesiosis, and Powassan disease. They have a round dark brown/blackish scutum.



Adult ticks are active all year. The six-legged nymphs are active May to August and the eight-legged larvae are active July to September. When working outdoors in the landscape or nursery, check yourself regularly for ticks and remove them rapidly. I wear clothing treated with permethrin when working in tick infested areas. Use insect repellents (such as DEET) according to label directions. Put sunscreen on first, then repellent. Never use DEET under clothing or on pets. Shower when possible after being outdoors. Throw clothes in a hot dryer for 10 minutes before washing, to kill any lingering ticks that may be attached to clothing.

Chemical Ownership is Changing

By: Stanton Gill

This week, the Federal Justice antitrust regulators granted permission to Monsanto and Bayer to merge. As part of the deal, Bayer had to sell its seed and herbicide division, worth \$9 billion dollars, to the German owned company, BASF. BASF is the world's largest pesticide company. Bayer is buying Monsanto for \$66 billion. This sale is part of the consolidation of the big chemical companies. The merger should occur in mid-summer of 2018. We will see what this change means for the horticulture industry over the next year .

Cherry Trees - Watch for Aphids

By: Stanton Gill

Several landscape managers have told us they are managing their customers' fruit plantings. If your customers have sweet cherry trees, then check the tip growth this week for the black cherry aphid, *Myzus cerasi*. This aphid is fairly large and shiny black in color. They build up on tip growth of sweet cherry trees and occasionally feed on tart cherry trees. The feeding causes the tip growth to twist and curl and become grossly distorted. In wet years like the one, the aphids build up rapidly since many of the predators and parasites are not as active in wet weather.

These aphids produce copious amounts of honeydew that will drip down onto the cherry fruit making them sticky. If the wet weather continues, then black sooty mold will grow on the fruit. One of the new materials we have been testing out in field trials is Altus from Bayer Company. This product is a systemic material and works well on many species of aphids. It has a label for ornamentals and fruit plantings.

Update On Scale Insects

Lecanium scale was found on *Cercis canadensis* in Columbia on May 31 by a manager with Brightview. The female covers were loaded with eggs, but no crawlers yet. Look for crawlers in the next week or two. This scale has many predators and parasites so it is best to use an IGR (Insect Growth Regulator) for control. Crawlers emerge for a period of about 6 weeks.



UMD-IPMnet
A female cover, as shown on the left, was flipped over to reveal many eggs (right)

White prunicola scale was found on cherry laurel in Anne Arundel County on May 30. Crawlers are still emerging at this time. Some crawlers have settled. You still have an opportunity to apply either Talus or Distance

Marie Rojas, IPM Scout, found **Maskell scale** on *Chamaecyparis nootkatensis* 'Pendula' in Frederick County on May 30. Marie noted that right now they are white eggs under brown covers. Maskell scales are extremely small and can hardly be seen by the unaided eye. They tend to congregate in the leaf axils. Adult female covers are about 1/16 inch long light brown, narrowly oyster-shell shaped; male covers are similar but smaller; and crawlers are pale-yellow. Use materials such as Talus or Distance when crawlers are active.



UMD-IPMnet
Maskell scale as viewed and photographed under a dissecting microscope

Marie Rojas found **pine needle scale** crawlers and immatures under dead female covers on *Pinus koraiensis* 'Morris Blue' in Frederick County on May 30. Many lady bird beetles and parasitic wasps feed on this pest; therefore, careful monitoring for predators and parasitoids, as well as using pesticides with little effect on beneficials, can allow biological control to suppress the population. If control is warranted, use a summer rate of horticultural oil or an insect growth regulator (IGR) such as Distance or Talus to target crawlers.

Heather Zindash, Mainscapes, Inc., found eggs under the female covers of **cottony camellia/Taxus scale** on May 25. There are, as of yet, no reports of crawler activity. Monitor plants infested with this scale closely. When crawlers emerge, the insect growth regulators, Distance or Talus, can be applied.

Ambrosia Beetle Activity

By: Stanton Gill

We are still seeing a fair amount of activity from adult *Xylosandrus* beetles. The adults are still being attracted to our baited alcohol traps in various parts of the state, but there is a definite downward trend. The rainy weather appears to be extending the activity period. Meanwhile, members of the Chestnut Society reported ambrosia beetles drilling into at least 4 of their plantings at Black Hill Regional Park. MNCPPC in Montgomery County had oaks and redbuds with frass tubes sticking out of the trunks this week.

We had a question from a nursery manager on using beneficial fungi for ambrosia beetle control. I asked Dr. Chris Hayes, BioWorks, to comment on the use of entomopathogenic fungus for ambrosia beetle control.

Here is the response from Chris:

“We have had success with BotaniGard in many outdoor markets including edibles and non-edibles. Adding a good spreader/sticker when applying is most helpful and targeting where the pest can be found (upper leaf surface, underside of leaf, soil surface, under soil surface) will help improve efficacy. I recently meet with Dr. Daniel Carrillo (Entomologist at Tropical Res. & Edu. Center, UF in Homestead FL); he has worked with us for years examining the used of BotaniGard to control Ambrosia Beetles in Avocados. He says of all the entomophagous fungi on the market BotaniGard offers the greatest mycosis value and residual activity under various humidity conditions. Lots of reasons why; would enjoy a chance to discuss with you live! We tend to suggest applying BotaniGard or BotaniGard Maxx later in the day especially if applying to plants and targeting the upper leaf surface. If overnight wetness is a concern then apply early in the day.”

Potato Leafhoppers

Marie Rojas, IPM Scout, reports that potato leafhoppers are just now out on *Acer rubrum* ‘Franksred’ in Frederick County on May 30. Look for leafhoppers on plants such as redbud, zelkova, river birch, maple, goldenrain tree, elm, honeylocust, sycamores and London plane trees. Potato leafhoppers are not as likely to be found in high numbers on landscape trees. Potato leafhopper feeding causes the tip growth on maples to curl over and harden which is typically referred to as ‘hopperburn’. The multiple generations keep damaging the new tip growth that flushes out on the maples. The leafhoppers migrate from the south and feed on new growth. When they arrive in an area, females will lay eggs on tip growth and the nymphs will begin feeding a few weeks later. If you are growing susceptible trees in the nursery, then now is the time to apply a systemic insecticide.



Two potato leafhopper nymphs are on this maple leaf; the curled, hardened damage is often called hopperburn. Photo: Marie Rojas, IPM Scout

Four-lined Plant Bug

Heather Zindash, Mainscapes, Inc., found four-lined plant bug adults and damage on May 26. Connie Bowers, Garden Makeover Company, found damage this week as well. Adults and nymphs feed on a wide range of annual and perennial flowers and herbs, including chrysanthemum, mint, liatris, basil, rudbeckia, and shasta daisy as well as fruits, especially currant and gooseberry. They may also feed on woody ornamentals such as azalea, dogwood, forsythia, and viburnum.

The four-lined plant bug uses its piercing/sucking mouthparts to feed on chlorophyll. It secretes a toxin in its saliva that causes white, dark, or translucent spots on the leaves. If damage is extensive, these spots coalesce and form large blotches. Heavy damage can cause leaves to turn brown and drop. The damage is sometimes mistaken for a leaf spot disease. There is only one generation per year. They finish their feeding activity early in the season, so there is usually no need to treat. New growth will hide old damage as the summer progresses.



The damaged caused by four-lined plant bugs is sometimes mistaken for a leaf spot disease
Photo: Heather Zindash, Mainscapes, Inc.

Powdery Mildew

With the high humidity, powdery mildew is infecting plants in the landscape. Connie Bowers, Garden Makeover Company, found a severe infection on peonies on May 26. She noted that plants were either in some shade or near a fence where air circulation was low. Pruning and adequate spacing of plants can increase air circulation to help reduce powdery mildew infection. When buying new plants, check to see if resistant cultivars are available. If necessary, fungicides can be used, but they should be applied when infections first appear with repeated applications according to the label.



Powdery mildew requires a film of water on foliage for infection; the recent rains have increased humidity levels
Photo: Connie Bowers, Garden Makeover Company

2018 MDA Pesticide Recycling Program

The Maryland Department of Agriculture is offering the empty plastic pesticide container recycling program in 2018. You can view the locations and requirements in the [online brochure](#).

Montgomery County is a new location this year and will also accept clean containers from Prince George's County as well as D.C., as they do not have a collection.

Stinkhorn Fungi

Dave Keane, Howard County Recreation and Parks, found stinkhorn fungi in Ellicott City on May 25. The fungi were growing in a mulched bed under a large ash tree. These fungi show up suddenly in lawns and landscapes. Spores adhere to the tip in a smelly slime which attracts flies. They break down old plant matter.



The smelly slime on the tips of stinkhorn fungi attracts flies

Photo: Dave Keane, Howard County Recreation and Parks

Gypsy Moth Caterpillars

Tom Wallace, Akehurst, reported that gypsy moth caterpillars defoliated a group of 20 Knockout roses within 24 hours. They were late instar larvae and will be finding places to pupate soon. Gypsy moth prefers oak, but will also feed on sweet gum, linden, willow, birch, apple, alder, boxelder, hawthorn and blue spruce. It is unusual to find them on roses.



An unusual find: gypsy moth caterpillars defoliating Knockout roses

Photo: Tom Wallace, Akehurst

Pine Spittlebugs

By: Nancy Harding

Marie Rojas, IPM Scout, found pine spittlebugs on *Pinus densiflora* ‘Umbraculifera’ and *Pinus koraiensis* in Frederick County this week. Look for the frothy masses of spittle on the twigs of pine. The nymphs of spittlebugs are found beneath the spittle. The adults do not form spittle masses but quickly jump and fly if disturbed. The adults are mottled gray with two faint parallel lines running across the wings.

Damage: Heavy infestations may stunt or kill shoots as the feeding activity clogs the tree vascular system. Black sooty mold grows on the spittle which drops onto needles and branches. This is the most common damage caused by this pest. The feeding wounds are also sites for infection of various fungi, especially *Diplodia* tip and stem blight.

Control: Usually not necessary. Remove all old, dead branches which are attractive for egg laying by the females is a good cultural practice. It has been reported to damage zoysia grass, but populations rarely build up on ornamentals to warrant any control. Customers might notice the spittle, but they don’t need to worry about it.



A pine spittlebug nymph is producing spittle along the stem of a pine

Photo: Marie Rojas, IPM Scout

Beneficial of the Week

By: Rebecca Waterworth and Paula Shrewsbury, UMD

Lady beetle diversity

On a recent trip to the National Zoo, I was captivated by the elephants, two-toed sloth, and the Komodo dragon, but I never bothered to pull out my phone to take a picture of them. I was moving between exhibits when I became distracted by some honeydew on the leaves of a tree. Ah ha! Aphids, I thought! Then, after a few seconds of searching for aphids, a multi-colored Asian lady beetle (*Harmonia axyridis*) [appeared eating one of the aphids](#). I could not pull my phone out fast enough to record what must have been a gruesome end for that aphid. Now that I think about it, I spent more time with that lady beetle than I did watching the elephants. Lady beetles, also ladybird beetles, (Order Coleoptera, Family Coccinellidae) have been on my mind recently. In my research, I count predators of brown marmorated stink bug (BMSB) (*Halyomorpha halys*) stuck to sticky traps. We know that some species of lady beetles eat the eggs of BMSB. It is important to determine the abundance and diversity of all predators of BMSB in different habitats, such as tree fruit, corn or soybean fields, and along wooded edges. It is helpful to know what species of predators are present in each habitat to develop tactics to conserve them in managed landscapes.

After counting predators on 200 traps, I was amazed by the diversity of lady beetles and quickly realized that most lady beetles are not red with black spots. They are still strikingly colored, but colors include pink, orange, yellow/beige, white, and black. In my traps, many species are also much smaller than the “typical” lady beetle. For example, spider mite destroyers (*Stethorus* spp.) are at most 1/16” long. Two of the most common lady beetle genera in my traps, *Diomus* and *Psyllobora*, are only 1.5 – 3 mm long. Contrast these sizes to the lady beetle in the video; *H. axyridis* can reach 10 mm in length (a giant!).

Once I started to recognize the smaller lady beetles, I realized that some of them could not possibly be predators of stink bug eggs. The eggs are too large for these beetles to eat! The diets of many lady beetles are known, mainly because they play an important role in the biological control of pests. We tend to think of lady beetles as generalist predators, like the *H. axyridis* in the video; they eat many other soft-bodied insects and eggs. For other species, their diet is much more specialized. Spider mite destroyers eat spider mites. *Diomus* specialize on aphids. In California, the vedalia beetle (*Rodolia cardinalis*) only eats cottony cushion scale. It was during the identification phase of my project when I realized the importance of identifying my lady beetles more specifically because one of the most abundant beetles in my traps, *Psyllobora vigintimaculata*, only feeds on fungi, particularly powdery mildew. Its mouthparts are designed to rake up spores and conidia. It is not a predator at all!

There are about 480 lady beetle species in the U.S. and Canada with about 40 species known to occur in Maryland. The overall shape of a lady beetle is probably the best way to identify them reliably. All adults are broadly oval or round with a strongly convex appearance (top of the body curves out). The head is concealed under a part of the thorax called the pronotum, so it looks a little like the beetles are headless when they are walking around!

Adult lady beetle identification is kind of fun. A [pictorial key online](#) was recently developed to help people identify their lady beetles on their own more quickly. Once you have identified a beetle as a lady beetle, select the best choice from each of the six questions. If you need an explanation about any of the questions, click “explain.” Once you have answered as many of the six questions as you can, click “search” to the far right. If the right combination of choices was selected, then a shortened list of lady beetle species will appear on the left side of the computer screen. Click on the individual species names to see pictures and compare with your specimen.

I thought that I might leave you all with a “quiz.” Using the key, can you identify the lady beetle in **figure 1**? Answer will be posted in next week’s article!

We would like to thank Mike Raupp for editing the video with *H. axyridis*.



Figure 1. What is the species name of this adult lady beetle with eggs? The head is facing the egg mass. While you can only see one side of the beetle, imagine the same pattern of spots on the other side to count the complete number of spots to use for the [key](#).

A lady beetle to identify using the key
Photo: Whitney Cranshaw, Colorado State University,
bugwood.org

Weed of the Week

By: Chuck Schuster, University of Maryland Extension

Trying to keep a memorial garden weed free has been difficult this spring. One plant that just seems to be growing as if it has been fertilized with plenty of nitrogen in my garden bed is bittersweet nightshade. Bittersweet nightshade, *Solanum dulcamara*, is a plant introduced from Eurasia as an ornamental and has become somewhat invasive. This plant is a perennial vine with trailing and climbing growth habits. This vine may reach more than 10 feet in length and is found throughout eastern and central United States. Bittersweet nightshade can outcompete many existing plants in a landscape. This plant prefers moist rich soils. The leaves are a dark green to purple color, ranging in length from 1 to 4 inches, alternate, and will often have 2 basal lobes at the base. The leaves are oval and have smooth entire margins. Flowers are star-shaped with a yellow center. Bittersweet nightshade reproduces by seed and by rooting at nodes. One positive thing about this plant is that the seeds do not have a high germination percentage after the first year. With an 80% germination the spring following the release of the seed, the following year the germination percentage is well below 40%. The stem is hollow and woody near the base and has small hairs. Leaves emit an unpleasant odor when damaged. Bittersweet nightshade will produce a blue flower from May through September during most years. The flowers have five petals and yellow fused anthers in the middle. Most often flowers will be drooping. (Note the red arrow in the photo below). This plant produces a bright red, egg-shaped berry, which will contain round, flat yellow seeds. This plant is poisonous if eaten.

Mechanical control of this weed is considered a good option in many settings. Pulling the plant with the roots will provide adequate control in many cases. If any part of the plant is left behind, it may re-establish. Pulling when the ground is damp (now) works well with small plants. Chemical control of bittersweet nightshade can be accomplished using post emergence selective broadleaf herbicides containing 2-4D, and triclopyr or non-selective products containing glyphosate and imazapyr. Both glyphosate and imazapyr have aquatic formulations available for use in areas that have a high water table or where the plants may grow in water. Triclopyr can be used in most grasses, sedges, rushes, cattails, lilies and irises. Triclopyr is available in both aquatic and terrestrial formulations and is sold in formulations that include the amine (e.g. Garlon 3A) or ester/BEE (Garlon 4). Like imazapyr, triclopyr is absorbed by woody stems and roots as well as leaves so care must be taken not to apply to bark and roots of the desirable plants and trees. Many of these products can cause damage to desired ornamental plants so use caution when applying.



Bitter nightshade is poisonous if eaten
Photos: Chuck Schuster, UME

Plant of the Week

By: Ginny Rosenkranz, University of Maryland Extension

Fuzzy deutzia, *Deutzia scabra*, is an old fashioned deciduous shrub from Japan and China that can grow 6- 10 feet tall and 4-8 feet wide. The 2-inch dull green leaves are oppositely arranged on brown arching stems that, as they age, have exfoliating bark which adds interest in the winter months. The tiny, pure white or pale pink flowers are star-shaped with extra petals that are held on upright panicles about 3-6 inches long. The fragrant flowers bloom in late May to June for about 2 - 3 weeks. The fallen petals create a soft white mulch. Plants are cold hardy in USDA zones 5-8, thriving in full sun or partial shade and medium moisture and well drained soils. The silhouette is a rounded form that should be trimmed after the flowers bloom to keep plants regenerated. Some of the cultivars include ‘Candidissima’ a double pure white flowering form, also called snowflake deutzia, ‘Godsall Pink’, a double clear pink, ‘Plena’, a double flower with rose purple color on the outside of the white flowers ‘Pride of Rochester’ with double light pink flowers, and ‘Punctata’ with single pure white flowers and green leaves marbled with white. *D. scabra* is one of the latest deutzia to bloom. Plants can be used in a shrub border, a mass planting or as a single fragrant shrub. Pests include leaf spots, aphids, and leaf miners.



The flowers of fuzzy deutzia are fragrant and bloom in May to June

Photos: Ginny Rosenkranz, UME

Degree Days (As of May 30)

Aberdeen, MD (KAPG)	555	Annapolis Naval Academy (KNAK)	801
Baltimore, MD (KBWI)	796	College Park (KCGS)	769
Dulles Airport (KIAD)	798	Frederick (KFDK)	717
Ft. Belvoir, VA (KDAA)	838	Greater Cumberland Reg (KCBE)	726
Gaithersburg (KGAI)	763	Martinsburg, WV (KMRB)	717
Natl Arboretum.Reagan Natl (KDCA)	943	Salisbury/Ocean City (KSBY)	807
St. Mary's City (St. Inigoes, MD-KNUI)	865		
Westminster (KDMW)	798		

Important Note: We are now using the [Weather Underground](https://www.weatherunderground.com/) site for degree days. It changes some of the locations available.

1. Enter your zip code (not all locations are included, check nearest weather station to your site) and hit enter
2. Click the “custom” tab/button below the date
3. Enter the start date below the word “from” (ex. Jan. 1) and the end date below the word “to” (current date)
4. Hit the get “history” button
5. Read your growing degree days (base 50) in the ‘Sum’ column (=Cumulative DD to date for the year)

CONFERENCES

2018 Procrastinators' Pest Management Conference

June 8, 2018

Location: Montgomery County Ext. Office, Derwood, MD

Contact: Chuck Schuster, cfs@umd.edu

DC— pending; MD—CORE, 3A, 3B, 3C, 5, 6 and 10

VA— 3-A, 3-B, 5-A, 60; MD Turf NM Credits—2 CEU's

Brochure: https://extension.umd.edu/sites/extension.umd.edu/files/_docs/Procrastinator%20Brochure%202018a_0.pdf

Eventbrite link: <https://www.eventbrite.com/e/23rd-annual-procrastinators-pesticide-and-urban-nutrient-management-conference-tickets-45519688614?aff=efbevent>

MNLGA Nursery Field Day

June 27, 2018

Locations: Chesapeake Nurseries, Inc. and Marshalls' Riverbank Nurseries Inc., Quantico, MD

[For more info](#)

Conference information is posted at:
<http://extension.umd.edu/ipm/conferences>

CONTRIBUTORS:



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



Paula Shrewsbury
Extension Specialist
pshrewsb@umd.edu



Karen Rane
Plant Pathologist
rane@umd.edu



Chuck Schuster
Extension Educator
cfs@umd.edu



David Clement
Plant Pathologist
clement@umd.edu



Andrew Ristvey
Extension Specialist
aristvey@umd.edu



Ginny Rosenkranz
Extension Educator
rosnkranz@umd.edu



Nancy Harding
Faculty Research
Assistant

Joe Roberts, Plant Pathologist (Turf)
robertsj@umd.edu

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

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

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

University of Maryland Extension programs are open to all citizens without regard to race, color, gender, disability, religion, age, sexual orientation, marital or parental status, or national origin.