UNIVERSITY OF MARYLAND EXTENSION

# TPM/IPM Weekly Report

**for Arborists, Landscape Managers & Nursery Managers**

**Commercial Horticulture** **April 27, 2018**

## In This Issue...



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 found in the landscape or nursery to sklick@umd.edu

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## Azalea Lace Bug

By: Stanton Gill, UME

Azaleas used to be one of the most common plants in commercial landscapes. They were eclipsed by the Knock Out roses at the start of this century. There are still plenty of azaleas in residential landscapes. The main insect problem is the azalea lace bug. The lace bugs overwinter as eggs in the leaves. We received a sample from Bethesda with the first hatch of azalea lace bug.

**Look on the undersides of azalea leaves for lace bug nymphs and fecal spots; later there will also be adults and eggs**
**Photo: David Clement, UME-HGIC**

Control is fairly easy. If you direct a 2% horticultural oil to the undersides of the foliage, it is effective. You can also use systemic insecticides to control this bug. A good systemic insecticide to use is Acelepyrn or Mainspring. You can apply as foliar applications or do a soil drench at the base of the plant.

## Invasive Species Conference

By: Stanton Gill

The room was packed last week for the Invasive Species Conference in Derwood. If you would like copies of the lectures we will post the pictures on the IPMnet webpages as PDF files next week. They will be posted to http://extension.umd.edu/ipm/conferences/conference-lectures. We will sending a very short survey next month to people who attended. Please take a moment to fill this out to help use in designing future conferences.

## Ambrosia Beetles

By: Stanton Gill, UME

The Ambrosia beetles, *Xylosandrus* species, are active but not in huge numbers so far. I found 3 *Xylosandrus germanus* in my alcohol baited trap at CMREC on Thursday. Tony Murdock sent in samples from Frederick, but they were *Xylosandrus saxesenii* and *Xylosandrus alni*. We will put out a special alert if numbers shoot up early next week. So far, it is a slow start for ambrosia beetle activity in 2018. Be happy with this situation.

## Felt Scale

By: Stanton Gill, UME

Jonathan Friend, Blake Landscapes, Leesburg, VA sent in pictures of a scale on little leaf linden trees. In Maryland, I have only examined samples of this scale on the Eastern Shore of Maryland, never in the central or western part of Maryland. We usually get this scale on pin oak or willow oak.

**This little leaf linden tree is heavily infested with oak erococcid (a felt) scale Photos: Jonathan Friend, Blake Landscapes**

This fluffy white scale is in a family of scale called Eriococcidae. Their appearance lends themselves to the common name of 'felt scales'. This is a different family than the common soft scales (Coccidae) that includes species like wax scale, lecanium scale, terrapin scale, and cottony maple leaf scale. Felt scales look a lot like felted mealybugs. The one that is most abundant now is the oak eriococcid scale. If you look at many urban willow oaks during this time of year, you will see small cottony fluffs.

The common one on oaks is called the oak eriococcid scale and has one generation per year. The cottony sack you see now is the ovisac (egg sack). If you dig around in the cottony material you will see tiny yellowish eggs. Pretty soon crawlers will emerge from the cottony mass to find a spot to settle and feed. They also produce honeydew, so these are some of the scales responsible for the tiny drops on your windshield if you park under willow oaks or other infested species. Heavily infested trees like some on campus make the sidewalk black with sooty mold.

At crawler stage apply either Distance or Talus.

## Gloomy Scale

By: Stanton Gill, UME

At the Invasive Species Conference we held last week, an arborist approach me who said they had a neighborhood that was loaded with gloomy scale. They had used dormant oil with little success in really knocking down the populations. He said they were covering the branches. I had him submit a sample into CMREC and I looked at them under the scope. The population was so encrusted that the oil was really not getting into the scale covered by old covers from previous generations. They are going to have to go after the crawler stage to get really good control.



**A red maple is heavily infested with gloomy scale; an overall view (above) and a close-up view on trunk (below)**

The common name of gloomy scale is very appropriate since the oval shaped female covers look gray, dusty and yes-somewhat gloomy. The gloomy scale has one generation per year so you have one opportunity to catch the crawler stage. Crawlers occur in July in most years. It may be a little later, based on this cool spring we are experiencing. I would suggest placing blue painter's tape with the shiny, no-sticky side on the branch with the sticky side aiming outward. The sticky tape will catch crawlers and you can monitor in July for crawlers. When you see them in your area, send me an email at sgill@umd.edu so we can let others know when they are active.

At crawler stage apply either Distance or Talus.

## Ambrosia Beetles – New Method of Preventing Damage?

By: Stanton Gill, UME

I received an e-mail from Katie Shapiro, George Bridge Landscape Design, this week. They are testing out a netting material that is treated with a synthetic pyrethroid for potential protection form ambrosia beetle attack to valuable trees. Katie is trying it out on a valuable beech tree. We will see if it has any impact by the end of the summer.

**A local nursery is testing out netting treated with insecticide to see if it will protect trees from ambrosia beetles**
**Photo: Stanton Gill, UME**

## Woolly Hemlock Adelgid Active in Late April

By: Stanton Gill, UME

Hemlock woolly adelgid is not very commonly found since most of the hemlocks were wiped out by this pest between 1990 and 2000. I have reports of several plantings in Bethesda, Chevy Chase, Kensington, and a few other isolated locations. If your customer has old surviving hemlocks, then monitor them now for hemlock wooly adelgid. Females are producing a lot of white wax in late April as they lay their eggs into this white mass. Systemic insecticides applied as soil drenches have been effective in controling this sucking insect.

**Hemlock wooly adelgids are producing white egg sacs in Kensington this week**
**Photo: Oscar Peña, Wray Landscapes, Inc.**

## Boxwood Mites and Spruce Mites

By: Stanton Gill, UME

I examined boxwood foliage at CMREC on April 24h and the mites are just starting to hatch. Now is the time to apply control materials. Examine boxwood plants growing out in full sun for mites. Upright boxwood cultivars usually are more prone to boxwood mite problems as well as ones growing in full sun. I have seen many boxwoods growing in containers on people's decks and these are ones we would watch for mite activity. Boxwoods in half day shade are not as likely to have problems with boxwood mites. Foliage was also examined from an Alberta spruce from Westminster and the eggs were still present with no hatching on the stems. If you find them active in other parts of Maryland, let me know at sgill@umd.edu.


**Feeding by mites causes stippling of foliage**

We should see spruce spider mites on Alberta and Norway spruces, but other spruce species are also susceptible. This mite is also found on Leyland cypress, several juniper species, and cryptomeria so monitor these plants for spruce spider mite hatch. The eggs have turned an amber to reddish color and they have a single hair (called a stipe) protruding out of the center of the egg. The length of egg hatch is impacted by the weather. It is supposed to remain relatively cool for the next 7 days, so we should continue to see hatch of spruce spider mites.


**Look for continuing hatch of spruce spider mite eggs**

Horticultural oil at the 1 – 2% rate can be use. The mite growth regulator (MGR) Hexygon (Syngenta Company) is very effective at this early stage of development.

## Spotted Winged Lanternfly

By: Stanton Gill, UME

We want all of you to on the lookout for spotted lanternfly this spring. They will be in the nymph stage in early May in Pennsylvania. If you find them, contact MDA in Annapolis or bring samples to an Extension office or you can bring in samples to our lab at CMREC. This pest is not established in Maryland yet, and we want to keep it this way – at least as long as possible. Your help in early detection is essential.

Penn State Extension has put out several excellent videos online on the IPM approaches they are using to dealing with spotted winged lanternfly in the eastern part of Pennsylvania. You can view the video at: https://extension.psu.edu/spotted-lanternfly-management-options-through-the-seasons


**A spotted lanternfly egg mass (gray) and a gypsy moth egg mass (light tan) Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org**



**An adult (above) and several immature stages (right) of spotted lanternfly Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org**

## Understanding the Effect of Water Quality on Pesticide Performance

Chuck Schuster, UME

Water is water, isn't it? No, it's really not that simple. The quality of the water being used for pesticide applications can be a determining factor in the efficacy of an application. The main factors of water quality that affect the effectiveness of a chemical are turbidity, pH, hardness and alkalinity.

What is the source of the water used for pesticide applications on the farm? Some farms use municipal water, while others may draw water from a well or a pond. In each case it is important for an applicator to know the quality of the water and to have the parameters of turbidity, pH, hardness and alkalinity tested. Why is this so important?

Turbidity, or the amount of suspended solids, soils, or organic matter carried in the water, can cause certain pesticides to be neutralized. Some chemicals can bind to suspended particles, especially organic particles, rendering the pesticide inert even before leaving the sprayer. The Koc value, which is the organic carbon sorption coefficient, is a measure of the tendency of a chemical to bind to organic materials in soils. The higher the Koc number for the pesticide, the more likely the pesticide is negatively affected by turbidity. Gramoxone has very high Koc values (1,000,000) and is very susceptible to suspended solids. Glyphosate is moderately affected with a Koc value of 24,000, while 2,4-D, Ametryn, Asulam, Atrazine, Dicamba, Diuron, Halosulfuron, Hexazinone, Metribuzin, Sethoxydim, Trifloxysulfuron have Koc values of less than 200.

The pH can also have an effect on your application. Most water in the region has a pH of between 7.5 and 8.5, with rare occasions of it being above 9.0. Some products can have a shortened life on plant material from days to just a few minutes when pH is too high. Some insecticides and weak acid herbicides, like glyphosate, break down quickly in water having a pH value above 8.5. Water pH may also change the charge on an active chemical ingredient.

In high pH water, herbicide chemicals can become negatively charged, attracting positively charged ions like calcium and magnesium. Dissolved calcium, magnesium and other cations in the water (water hardness) can reduce the efficacy of many herbicides by bonding with the active chemical ingredient. Water hardness levels above 600 mg/L will likely cause interference with chemicals like 2,4-D. Have you ever had a less than satisfactory burn down with glyphosate? Hardness levels above 350 mg/l, can reduce the effect of glyphosate at lower label rates on target plant material; above 700 will reduce efficacy of glyphosate at the higher label rates.

High alkalinity (carbonates and bicarbonates dissolved in water) at 500 part per million or greater can reduce the effectiveness of herbicides like SELECTMAX and Poast. Again, ammonium sulfate can help neutralize the effects of alkalinity.

Turbidity can be dealt with by using filters while pH, hardness and alkalinity can be managed by using spray additives like diammonium sulfate (ammonium sulfate) or Spray Aide by Miller Chemical. Spray Aide will cost $2.50 per 100 gallons of spray used. It should be noted that copper products do not work well with acidifiers. Even though these measures add to the price of the application, they make the selected chemicals do a better job.

Know your source-water quality. Evaluate your water for turbidity, pH and hardness. One way of determine the cleanliness of you water is the quarter in a five gallon bucket test. Place a quarter at the bottom of a five gallon bucket, and then fill it with water from the source that will be used for pesticide application. If you have any difficulty seeing the quarter, some filtering should be considered. Take time to review the requirements for water quality on your chemical's label. These basic steps will save you time and money by making your chemical applications more effective.

## Disease Update: Control for Powdery Mildew and Apple Scab This Week

From Kari Peter, PA State Extension

Tight cluster is the time powdery mildew spores become active. April 24 – 25, 2018 is a predicted scab infection period; be sure trees are covered with protection. (Updated: APRIL 23, 2018)

Many areas are in the tight cluster stage of bud development on apples. Now is the time to begin powdery mildew control. Powdery mildew is considered a "dry weather" disease. The fungus does not like prolonged leaf wetness (i.e., apple scab conditions); high humidity and temperatures ranging from 55 - 70°F are enough for the spores to germinate. Be mindful of the dry weather days occurring from tight cluster until the shoots harden off (approximately second cover spray), which is the most susceptible time for infection since the powdery mildew fungus likes young tissue. As tissue begins to grow, the fungus will colonize young, green tissue as it emerges. Symptoms of primary infection include "flag shoots," which may have stunted growth or die back. On very susceptible varieties, severe blossom infections can occur and fail to produce fruit.

**Severe powdery mildew infections can abort blossoms**
**Photo: K. Peter, Penn State**

Rain is in the forecast this week and an apple scab infection period is predicted for April 24 – 25, 2018. There is the challenge of controlling for powdery mildew and scab combined with practicing fungicide resistance management during these mixed days of dry and wet conditions. During the current period of green tip through tight cluster bud development, when scab spores are on the lower side, consider using fungicides from FRAC Groups 3 or 9, such as Rally, Indar, Inspire Super, Procure/Trionic, Scala, or Vangard. Syllit, which is FRAC Group M7 can also be included; however, include sulfur for powdery mildew control since Syllit is ineffective for controlling powdery mildew. Alternative management options include sulfur or lime sulfur only (both will manage scab and powdery mildew). Be sure to rotate FRAC Groups and tank mix with a broad spectrum fungicide (mancozeb, ferbam, metiram, ziram) for fungicide resistance management.

There are many products available with the FRAC Group 7 mode action. Several of these products are excellent for both scab and powdery mildew control. Growers are highly encouraged to wait to use the FRAC Group 7 fungicides during pink through petal fall; these fungicides are best saved for peak apple scab pressure, which is from pink through petal fall. Even if dry conditions persist during late pink through petal fall, the FRAC Group 7 products will control for powdery mildew control during this time period.

## Spring Landscape Fertility: Now is the Time!

By: Andrew Ristvey, UME

Most experts agree and research backs fertilization of landscape throughout the growing season, especially during the spring, when soil temperature (above 55 °F) activates nutrient uptake and root and shoot growth. This 2018 spring had a slow start, but soil temperatures are increasing (See Chuck Schuster's facebook page for 2018 soil temperature records), so now is the time!

First, you may want to get soil tests for your new beds and the old beds that you are maintaining. While landscape beds are not regulated like turf, soil tests can be useful. Do so for each bed, where practical. Take several sub-samples within a bed at 4 to 8 inches, mix them in a bucket and take a sample of that mix. Send the sample to a reputable lab. Make sure that you ask for a test which includes the full spectrum of analyses

including organic content, pH, Cation Exchange Capacity (CEC), and all the essential nutrients. The soil test will help you determine what form of fertilizer to use and how much phosphorus, potassium and calcium to apply, along with any micronutrients.

When developing new beds, note the species you are planting. Try to keep species of similar soil requirements in the same bed to make soil management easy. Fertilize with the correct nitrogen (N) source. For instance ericaceous species like azalea, rhododendron, mountain laurel and pieris are acid-soil plants. First, they do not use nitrate well, so there is no sense in fertilizing these plants with nitrate-based fertilizers. Second, nitrate increases soil pH when taken up by the plant.

While we are on that subject, there are several ways to acidify soil or keep the pH low with the fertilizer. When considering N fertility, use an ammonium based fertilizer to reduce pH. This works in two ways. Plant uptake of ammonium creates a net gain of H+ ions in the soil which lowers pH. Microbiological conversion of ammonium to nitrate also creates a net gain of H+ ions in the soil. Urea is slightly acidifying. In soil, it breaks down to bicarbonate (which reduces acidity) and ammonium which increases acidity when taken up by plants or converted to nitrate. The overall effect is a slight lowing of pH (increased acidity). For the other species, your soil chemistry will determine your N form. In low pH soils, the use of nitrate based fertilizer would help in bring soil pH up for plants that like soil a little sweeter.

If the landscaping bed's nutrient content is in good shape (based on the soil test), use approximately ¼ oz of actual N per plant for 1st and 2nd year medium-size woody shrubs (3 gallon), and half that for small shrubs (1 gallon). Two tablespoons of 18-6-12 is a little over a ¼ oz of N. If plants continue to look good, with decent growth, maintain that fertility level. You can double that rate after the 4th year, if necessary. Larger plants like small trees should receive between ½ and ¾ oz of N. A slow release fertilizer or one with some water insoluble N is preferred. If you have an all-soluble fertilizer, 3 split applications are suggested in April, late May and late June to apply the recommended N. If rainfall is lacking, limit fertilization unless beds have irrigation. For annual and perennial gardens, apply a ½ oz of soluble N per 100 square feet, every month to 6 weeks or 2 ounces of slow release N per 100 square feet, once. Above all, follow the label. Be careful where you are applying the fertilizer. Sweep up any fertilizer spilled on sidewalks or hard surfaces.

An additional consideration is the organic matter (OM) in your soils and the Estimated Nitrogen Release (ENR) from that organic matter. This is a parameter on a soil test. The more OM in the soil, the less N is required. If your OM is below 3.1%, then use the full rates suggested above. If it is above 3.1% then use 2/3 of that N rate. In my opinion, and there are some who may argue, the most efficient method of granular-N fertilizing is the drill and fill method, coined by NC State Horticultural researcher, Ted Bilderback. Under the drip line, make a hole and place your fertilizer in it. Broadcasting fertilizer is less effective and probably gives more nitrogen to the soil bacteria than to plant roots. Concentrating the fertilizer gives the plant a fighting chance, as roots are less competitive for nitrogen than microorganisms.

If you have any questions, feel free to call me at 410-827-8056 x 113 or email me aristvey@umd.edu.

### Some People Growing Chinese Fir Trees May Be Concerned

From: USDA, New Pest Advisory Group (NPAG), April 27, 2018

"*China fir borer is a serious pest of Chinese fir (Cunninghamia lanceolata) in its native range. Other hosts include include China cedar (Cryptomeria fortunei) and Jujian cypress (Fokienia hodginsii). It develops under the and in the wood of host tree species. The insect can be moved on infested wood such as solid wood packing material (e.g., pallets, crates, and dunnage) furniture, handicrafts, and other wood products. This cerambycid may establish in Plant Hardiness Zones 5 through 10, wherever host trees are found.*"

**Note:** This borer emerges in the spring.

## White Prunicola Scale

Oscar Peña, Wray Brothers Landscapes, is finding white prunicola scale on skip laurels in Bethesda. Eggs have not been reported yet this season. There are three generations per year. The first crawler period is in May. Start to closely monitor plants infested with this scale. The most common host plants that should be monitored are: *Prunus* spp., *Ligustrum* spp. (privet), *Syringa* spp. (lilac) and *Euonymus* spp. (euonymus). You are looking for the white male and female "covers" on the bark of branches and trunks. The adult female has a distinctive "fried egg" appearance and clusters of males give the bark a fluffy appearance. Note that white peach scale looks very similar to white prunicola scale but they have different host plants.

**Control:** When crawlers are out (the first generation is in May), apply pyriproxyfen (Distance) or buprofezin (Talus) mixed with 0.5 - 1% horticultural oil for control.

**Look for eggs under covers of white prunicola scale as we move into May**
**Photo: Oscar Peña, Wray Brothers Landscapes**

**Gymnosporangium rusts continue to develop on junipers as we move into May**
**Photo: Marie Rojas, IPM Scout**

## Beneficial of the Week

By: Paula Shrewsbury, University of Maryland

Tigers are on the loose!

This past week I sighted tigers on a walking path in Columbia MD! No need to be alarmed. I am referring to the six-spotted green tiger beetle, *Cicindela sexguttata*. Tiger beetles are a species of ground beetle (Carabidae) and there are multiple species of tiger beetles in MD. Another member of the entomology department also found tiger beetles last week but these were bronzed tiger beetles, *Cicindela repanda*. Species vary in color but most have a metallic hue to them, and all are voracious predators.

**A six-spotted green tiger beetle adult enjoying a tasty ant meal**
**Photo: M. Raupp, UMD**

Interestingly, the six-spotted and bronzed tiger beetles occupy 2 different ecological niches or habitats. Six-spotted green tiger beetle more common on hiking and biking trails in wooded areas, especially in sunny spots. The six-spotted tiger beetle is about 10-14 mm long, and have 6 white spots on its elytra (wings). Because of the six-spotted tiger beetles beautiful metallic green color they are relatively easy to spot on a trail. This species occurs across the entire eastern half of the U.S. with the exception of the very South and the Florida Panhandle. Whereas the beetles bronzed tiger beetles are bronzed in color with a unique pattern of lines on its elytra and are about 10-13 mm long. Bronzed tiger beetles are most abundant on the sandy banks of the river and are found in almost every U.S. state.

**Nancy Woods and Bob Kestell found tiger beetles in Montgomery County this week**
**Photo: Nancy Woods**

As you approach a tiger beetle, it will take flight and land about 5 – 10' away. Unlike assassin bugs or preying mantids which are "sit and wait predators", tiger beetles are "active hunters". They actively stalk, chase, and capture their prey along the ground. Tiger beetles have quite long legs for running and large eyes that enable them to search their surroundings for any signs of movement which would indicate potential food or danger. Their jaws are powerful with very prominent "teeth" which they use to grab and crush their prey – yikes! Both adult and immature tiger beetles are carnivorous. The eggs of tiger beetles are laid in the soil where once hatched, the larvae build an underground burrow. The larva waits in the burrow for an unsuspecting prey to pass by. When this happens the tiger beetle larva jumps from its burrow and grabs the prey, pulls it into the burrow and enjoys a feast. These beautiful insects are interesting to watch, but if you


**A mating pair of bronzed tiger beetles that were hanging out on sandy river bank in MD**
**Photo: P. Shrewsbury, UMD**

have the need to catch one beware – they have been known to draw human blood with their powerful and sharp mouthparts.

I also want to mention a third species of tiger beetle that is well known in Maryland, the Puritan tiger beetle (*Cicindela puritana*). The Puritan tiger beetle has been listed as a threatened species under the Federal endangered species act since 1990. Maryland is home to the largest known global population of the Puritan tiger beetle. The Chesapeake Bay contains two populations of Puritan tiger beetles. Adult tiger beetles can be seen on certain beaches and the larvae require a very specific habitat. They need naturally eroding cliffs along the beach. Go the website listed below to learn more about these beetles and what they look like.

To learn more about tiger beetles visit the following web sites:
https://www.fws.gov/chesapeakebay/endsppweb/beetle/TigerBeetle.html
https://aggie-horticulture.tamu.edu/galveston/beneficials/beneficial-33_tiger_beetles.htm
http://www.raupplab.umd.edu

### Weed of the Week

By: Chuck Schuster, University of Maryland Extension

Soil temperatures are variable this week in the same locations, and very different, as expected, across the state. Soil temperatures have ranged this week in central Maryland from the mid 40 °F range to the low 60's. On the lower Eastern Shore of Maryland temperatures have been consistently in the upper 50 °F range. Cumberland Maryland even had a soil temperature in the low 50 °F range this week. If pre-emergent products have been applied, the ample rainfall has activated it, with more rain in the current or recent past forecast. Japanese stiltgrass has germinated in Laytonsville. Crabgrass has been noted germinating in Elkridge. Mile-a-minute was noted in the Olney area. The season has started for 2018.

As we look over the turf, we are seeing a great deal of things topping above the desired species of turf. Some of these plants have a different color also. Requests came in from all over the state this week for identification help of both annual bluegrass and roughstalk bluegrass.

Annual bluegrass, *Poa annua*, is a common weed in this region and the United States, and is noticeable with anyone looking out over a turf site with is off color. Annual bluegrass is an **annual**, usually classified as a winter annual, though the location of the site can change this status in some regions. Most winter annuals will die soon after seed production in the spring, but on warmer protected sites it may continue to grow much like a perennial. Annual bluegrass is noticed as it grows erect or in a small clump. It tolerate close mowing heights, and can reach heights of nearly one foot in landscapes and unmanaged turf. Its ability to adapt to close mowing takes away one method of cultural control. One distinctive characteristic is the "boat-shaped" tip that the leaf blades form. The blades of this grass will present without hairs and are narrow but long. Blade dimensions can reach four inches in length, and one eighth inch in width. Annual bluegrass prefers a moist to wet soil, and while we have not had an overabundance of moisture this spring, we had a mild winter and some dampness last fall.

**Annual bluegrass grows erect or in a small clump**
**Photo: Chuck Schuster, UME**

**Annual bluegrass tolerates close mowing heights**
**Photo: Chuck Schuster, UME**

Roughstalk bluegrass, *Poa trivialis*, is a **perennial** weed found in turf. It is classified as a fine textured, cool season turf with a prostrate spreading growth habit. Roughstalk bluegrass will spread quickly by way of stolons which can be a problem for the desirable turf species. It reaches a total height of up to three feet, with a panicle seed head, which is typical of other bluegrass species. As weather gets hotter, it will go into a dormant stage, returning to active growth when the temperature moderates and then it will grow through the cooler months.

Roughstalk bluegrass stems has bands of purple at each node, and the stems have small hairs. Leaves have a boat-shaped tip found in most bluegrass species, have a shiny light green color, and may discolor to a bronze when stressed by heat or drought. Each leaf blade can be up to seven inches in length, and one quarter inch wide. Leaf blades are covered with small hairs. It will also present with a large ligule that is membranous. This weed can be infected by dollar spot and brown patch disease. Roughstalk bluegrass thrives in poorly drained, damp, and compacted soils. It prefers shade, but will be found moving into sunny areas of the lawn. This weed spreads very aggressively.

**Roughstalk bluegrass has a shiny light green color**
**Photo: Chuck Schuster, UME**

Control for these two weeds is different. Annual bluegrass control starts with moisture control as one of the cultural methods used to prevent this weed. Soils are not overly wet at this time, but with recent rains they may become so in the near future. Using irrigation water carefully can help manage this grass, especially in shady areas. Compaction is another condition that creates the ideal site for annual bluegrass. Do not aerate during the germination period for annual bluegrass (fall germinating). While collecting clippings is not usually recommended, if you have an area with a stand of annual bluegrass, consider collecting the clippings during seed production periods to reduce the seed bank for the following fall.

Prevention is always the best method of control. Mulches in landscape settings using a weed barrier beneath, and in turf settings, prevention of seed movement to a site on mowers by cleaning are very useful. Early detection and elimination is the next line of defense. Rogue out when possible. Chemical control in landscape settings includes prodiamine (Factor, Barricade), oxadiazon (Ronstar), benefin/oryzalin (XL), benefin/trifluralin (Team), and Surflan as pre-emergent's. In turf, early post emergent control can be obtained using ethofumesate products (Prograss). Non selective post emergent control can be easily obtained using glufosinate (Finale) and glyphosate products. Remember that pre-emergent failures are often the fault of improper application timing. Since annual bluegrass is a winter annual, be sure to apply pre-emergent products applied in the August and September timeframe.

For control of roughstalk bluegrass one will find it is difficult in established turf. Velocity herbicide is labeled for it and has shown efficacy. It should be noted that some damage may occur to the desired species of turf, but they will recover over a two week period. Total lawn renovation or killing the patches using glyphosate and then reseeding will slow it down, but because of the vast seed bank in the soil, it will return.

## Plant of the Week

By: Ginny Rosenkranz, University of Maryland Extension

*Dicentra* 'King of Hearts' is a compact sterile cultivar that is a hybrid of a Japanese species and 2 American *Dicentra* species. The heart-shaped flowers are a bright carmine red in color, with 2 back spurs and an inner drooping petal that resembles a drop of blood, giving the plant the name of bleeding heart. The flowers are held on a slender 10-15 inch arching stem that curves gracefully above the foliage. The fern- or parsley-like foliage is a lush blue-green that grows into a compact mound about 6-8 inches tall and 14 inches wide. *Dicentra* 'King of Hearts' was bred to have a robust growth habit and a long period of bloom of 4-6 weeks. The soil needs to be

slightly acidic, moist but well drained for the best blooms, and plants prefer to grow in partial shade. They are cold tolerant from USDA zones 3-9 and are said to be resistant to rabbits and deer. Although they can grow in warm areas, they stop blooming until the temperatures cool down.

Pests include aphids, slugs & snails, powdery mildew, downy mildew, verticillium wilt, fusarium wilt.

**Dicentra 'King of Hearts' produces bright, carmine red flowers**
**Photo: Ginny Rosenkranz, UME**

## Phenology

| PLANT | PLANT STAGE (Bud with color, First bloom, Full bloom, First leaf) | LOCATION |
|---|---|---|
| *Camellia japonica* 'Jerry Hill' | Full bloom | Ellicott City (April 24) |
| *Cercis canadensis* | Full bloom | Salisbury (April 27) |
| *Cercis chinensis* | Full bloom | Salisbury (April 27) |
| *Cornus florida* | Bracts expanding | Salisbury (April 27) |
| *Magnolia soulangiana* 'Jane' | Full bloom | Salisbury (April 27) |
| *Sassafras albidum* | First bloom | Ellicott City (April 23) |
| *Wisteria chinensis* | First bloom | Salisbury (April 27) |

### Degree Days (As of April 25)

| | | | |
|---|---|---|---|
| Aberdeen, MD (KAPG) | 130 | Annapolis Naval Academy (KNAK) | 198 |
| Baltimore, MD (KBWI) | 183 | College Park (KCGS) | 189 |
| Dulles Airport (KIAD) | 193 | Frederick (KFDK) | 140 |
| Ft. Belvoir, VA (KDAA) | 218 | Greater Cumberland Reg (KCBE) | 133 |
| Gaithersburg (KGAI) | 179 | Martinsburg, WV (KMRB) | 147 |
| Natl Arboretum.Reagan Natl (KDCA) | 237 | Salisbury/Ocean City (KSBY) | 211 |
| St. Mary's City (St. Inigoes, MD-KNUI) | 231 | | |
| Westminster (KDMW) | 159 | | |

**Important Note:** We are now using the Weather Underground 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 (=Cummulatlive DD to date for the year)

**2018 Maryland Urban & Community Forestry Summit**
Organized by the Maryland Forestry Foundation
May 11, 2018
4.5 Maryland Licensed Tree Expert CEUs
Location: Patuxent Wildlife Vistor Center, Laurel, MD

**Eastern Shore Pesticide Recertification Confernce**
June 1, 2018
Location: Wye Research and Education Center, Queenston, MD
Contact: Ginny Rosenkranz, rosnkrnz@umd.edu

**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

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

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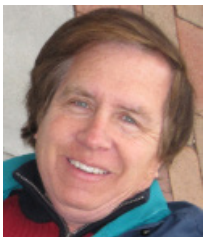
## CONTRIBUTORS:

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