In This Issue...
- Weather update
- Request for photos
- Woolly aphids
- Emerald ash borer
- Deer activity
- Removing tree supports
- Managing rights-of-way

Beneficial of the Week

Weed of the Week

Plant of the Week

Phenology

Degree Days

Announcements

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Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)
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 – Finally Enough
By: Stanton Gill

Well, the rains finally came. Growers on the Eastern Shore of Maryland reported 7” of rain. Southern Maryland had over 4” and central Maryland had between 4 – 5” of rain on September 30 and October 1. The ground is finally softened up and should improve transplanting of fall planted trees.

The red color of this eastern tiger swallowtail caterpillar indicates it is ready to pupate; it was crawling across the parking lot this week

Request - Leyland Cypress Problems
By: Stanton Gill

In February, David Clement and I are giving a presentation on problems with Leyland cypress. Here is where we need your help. If you have pictures of plants suffering from major problems, please send them to us at sgill@umd.edu or clement@umd.edu. We will give you all of the credit when we present.
Woolly Aphids Are Out in October
By: Stanton Gill

Two woolly aphids are active this month – the woolly apple aphid and the woolly beech aphid. Both are very noticeable since they mass on branches and leaves. Woolly beech aphids tend to move en masse making a creative and entertaining white wax dance routine on the branches. Katie Laushman sent in this link to a video she took of the woolly beech aphid on a branch. https://goo.gl/photos/qQimcm129aczN2sR9

Woolly apple aphids are reported to be native to North America, but they are found in most apple growing areas of the world. This aphid feeds mainly on apple, but can also be found on pear, quince, mountain ash, hawthorn, and cotoneaster.

Emerald Ash Borer
By: Stanton Gill

I received an email asking whether it was better to apply systemics to control emerald ash borer in the fall compared to the spring. The preponderance of the research has shown that spring applications are very effective. I asked Dan Herms of The Ohio State University to comment and here is what he replied: “We have a study underway to evaluate late October injections with TreeAge but don’t have results yet. In a multiyear study, we found that imidacloprid soil treatments in October/November were not as effective as spring. The residual activity of Dinotefuran is shorter than imidacloprid, so I suspect it would be even less effective. I still recommend spring treatments as the ideal timing.”

I also asked David Smitley of Michigan State University to comment. Here is what he said: “For TREEage a fall injection is just fine because it lasts 3 years. Also, if it is made early enough in the fall, you may also get some protection against fall tunneling damage (Although Dan Herms disagrees). For the imidacloprid trunk injections, spring is the best time. May in Michigan, probably April in Maryland.”

Watch Out for Deer
Brian Scheck, Maxalea, Inc., is finding that deer are starting to rub trees in Baltimore County. Look for damage on trees and be on the lookout for them while driving around the area at this time of year.
Removing Tree Supports
Mark Schlossberg, ProLawn Plus, Inc., sent in this photo of a crape myrtle in Pikesville where someone forgot to remove the support cable. Mark noted that the tree is looking fine at this point.

Managing Rights-of-Way
Jake Fisher, FirstEnergy/Potomac Edison, found monarch caterpillars on a rights-of-way near Sabillasville. Ron Muir, FirstEnergy/Potomac Edison, noted that this right-of-way was treated this summer (2016) with herbicide via back packs to selectively treat the incompatible species (ex. Autumn olive) and leave the compatible herbaceous plants such as milkweed. Ron notes that they have found this type of treatment promotes the meadow-like habitat that various pollinators such as the monarch and other butterflies along with bees and wasps. On October 3, Jake Fisher reported that he came across a large stand of goldenrod in the right-of-way that caught his eye where he heard loud “buzzing.” Jake reported that he was “amazed at the amount of honey bees especially, along with various other pollinator species”. This transmission line was treated with herbicide via backpack to selectively remove tall growing incompatible tree species i.e. Ailanthus, hickory, and black cherry in 2014.

Beneficial of the Week
By: Paula Shrewsbury

Music in the night… The weather has cooled down and we can now sleep with the windows open to enjoy the cool night air. In addition to enjoying the evening temperatures there is the added benefit of hearing entomological music made by Orthopteran insects. At this time of year it is mainly various species of crickets
and katydids. Today I want to discuss katydids. Katydids are not only musicians at night but many species are also predaceous.

Katydids are in the family Tettigoniidae and are sometimes referred to as bush crickets. There are over 6,000 known species with about 250 in North America. Katydids can be distinguished from grasshoppers by their antennae which are longer than the length of their body, whereas grasshopper antennae are shorter and slightly thicker. Katydids also have very long hind legs used for jumping. Katydids are nocturnal insects. Some katydid species feed on leaves, flowers, bark and seeds of plants, while others are predacious. Katydids range in size as small as 5 mm and as large as 130 mm. The life cycle of a katydid is 1 year. Eggs are laid in late summer. The eggs are oval-shaped, somewhat flattened, and laid in rows on plant small plant stems or sometimes in the soil. Eggs hatch in the fall. Nymphs of some species look similar to adults, but smaller and without fully developed wings.

Katydids exhibit mimicry and camouflage using their shape and colors to look like leaves (see the image) of plants to reduce the likelihood another predator will eat them. Nymphs of some species mimic spiders, assassin bugs, or flowers. Very cool!

In the late summer and early fall (now) is when we hear the songs of katydids. Katydids communicate with each other by using strident mating calls. Males often “sing” and females decide if she likes the male’s song and will mate with him, or not. Katydids produce sound with their front wings. One wing has a structure called a scraper which is pulled across a complimentary structure on the other wing called a file. The vibration that results is the song that sounds like “katy did” hence their name. The female katydid “hears” the song of the male through a small opening on each of her front legs. There is a membrane inside the opening that acts like an eardrum. The female uses the shrill song produced by the males to determine the “fitness” of the male (i.e. does she or does she not want his sperm for her children?). Louder and more consistent shrills indicate a more fit male. Males also provide a nuptial food gift to the female which she consumes during mating, and ultimately increasing the time of attachment and the likelihood that male will father her children.

Predatory species of katydids feed on other insects, snails, and small vertebrates such as lizards. Katydids have a diversity of spines on their legs and body that assist in capturing their prey. Large katydids also have a pretty good bite that can be somewhat surprising and painful when they get you (speaking from experience!). So use caution when capturing these beautiful leave mimicking creatures.

To hear the song of katydids go to: https://youtu.be/x6wXjCwflmc
Weed of the Week
By: Chuck Schuster

Burcucumber, *Sicuos anqualatus* is a weed found in turfgrass, nursery and landscape settings. It is a summer annual that becomes aggressive in late summer and fall. It is a vining plant that produces a fruit that is covered with bristles or spines. It produces a leaf looking very similar to that of the vegetable cucumber, with tendrils that wrap around almost anything with which it comes into contact. The flowers are white to pale yellow. This plant can grow to ten feet in height.

Burcucumber will produce one seed per fruit, and the seed about the size of watermelon seed, and has a hard covering. This makes the germination process extend over a longer period of time. Early in the season it is an easy to pull plant that generally will not recover. In the heat of a summer day, the leaves will droop and look very wilted, but they recover during the night. The leaves are alternate, with three to five lobes. The fruit will occur in bunches and will attach to clothing and catch on wildlife fur and be transported.

Control of this plant starts with good sanitation. Do not let the plant produce seed. If found, mechanical removal works well. In turfgrass, mowing will prevent this plant from going to seed. In fringe areas near trees, make sure it is removed from the tree areas. It responds well to glyphosate products where they can be applied. Sedgehammer, Halosulfuron, is useful in control. Other products that are listed for control are dicamba and 2,4D (not for use in landscape setting).

Plant of the Week
By: Ginny Rosenkranz

*Pinus leucodermis* ‘Irish Bell’ is a very slow growing evergreen pine shrub with a dense pyramidal form that grows into a compact plant that is 10 - 12 feet tall and wide. The name ‘Irish Bell’ is appropriate because as it ages, the plant narrows at the top and widens at the base, creating a bell-shaped plant. It is a dwarf selection of
the Bosnian pine which slowly grows to a mature height of 40 feet tall and 10 feet wide. The needles are a very dark green with glistening white fascicles and can persist on the branch for up to 5-6 years. They are placed in 2’s in thick tufts on the branches. Plants grow best in full sun and are hardy in USDA zones 5-7. Unlike many pines, *Pinus leucodermis* ‘Irish Bell’ Pine is very salt tolerant, making it a great plant near driveways and sidewalks that need salt to control ice in the winter. Due to its slow growth and multi-stemmed habit, pruning is not needed. It prefers slightly acidic, average soil moisture in a well-drained soil. It is drought tolerant once established, and very tolerant of urban pollution making it an excellent plant for city gardens. It is resistant to Diplodia blight.

*Pinus leucodermis* ‘Irish Bell’ is very salt tolerant making it a good choice for along driveways and sidewalks

Photos: Ginny Rosenkranz, UME

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**Degree Days (As of October 5)**

<table>
<thead>
<tr>
<th>Location</th>
<th>Degree Days</th>
</tr>
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<tbody>
<tr>
<td>Annapolis Naval Academy (KNAK)</td>
<td>4090</td>
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<tr>
<td>College Park (KCGS)</td>
<td>3791</td>
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<td>Ellicott City (E3247)</td>
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<td>Frederick (KFDK)</td>
<td>3642</td>
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<td>Gaithersburg (KGAI)</td>
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<td>Natl Arboretum.Reagan Natl (KDCA)</td>
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<tr>
<td>Salisbury/Ocean City (KSBY)</td>
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<td>Westminster (KDMW)</td>
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<td>Baltimore, MD (KBWI)</td>
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<td>Martinsburg, WV (C1672)</td>
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<tr>
<td>Rockville (C2057)</td>
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<tr>
<td>St. Mary’s City (St. Inigoes, MD-KNUI)</td>
<td>4240</td>
</tr>
</tbody>
</table>

**Important Note:** We are now using the [Online Phenology and Degree-Day Models](#) site.

Use the following information to calculate GDD for your site at the [Online Phenology and Degree-Day Models](#) site: Select your location from the map

- **Model Category:** All models
- **Select Degree-day calculator**
- **Thresholds in:** °F
  - Lower: 50
  - Upper: 95
- **Calculation type:** simple average/growing dds
  - Start: Jan 1

Once you know the GDD and / or plant phenological indicators (PPI, what plants are blooming) in your location, you can go to the [Pest Predictive Calendar](#) to determine what pests you can expect to be active soon in that location.
Commercial Horticulture Conferences

5th Annual Trees Matter Symposium
October 19, 2016, 7:30 AM – 4:00 PM
Silver Spring Civic Building
Details are available online

New Location for 2016 December 2016 Conference
Howard Community College in Columbia for December 16, 2016. Look for the schedule in mid-October.

Advanced Landscape Plant IPM PHC Short Course
January 3rd to January 6th
Website: landscapeipmphc.weebly.com
For registration information visit our website or contact: Kiley Gilbert, University of Maryland, Dept of Entomology
Tel: 301-405-3911, Monday-Friday 8:4:30
Email: kgilber4@umd.edu

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