TPM/IPM Weekly Report

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) 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)

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Beneficial of the Week

Ambrosia Beetle Activity
By: Stanton Gill

I checked our traps at CMREC on Wednesday and a sample from Ft. Detrick (Frederick). The sample counts are way down, not too surprising with the cold weather. We had several Xyleborinus alni and X. saxesenii. There was one Xylosandrus crassiusculus in our CMREC trap.

I received a call Wednesday from a nursery in central Maryland who saw wet spots developing on the trunks of sugar maples growing in containers. Their alcohol baited tree bolts also had hits of ambrosia beetles. They are sending the adult beetles to our lab for ID. Last Friday and Saturday morning was warm and we might have started to see activity from Xylosandrus in this nursery. The cold weather came in and it really reduced the trap catches. I doubt we will see activity over the weekend since temperatures are dropping and staying down until at least Tuesday. I am still suggesting holding off on protective sprays. We will update you on Monday if this situation changes.

IPMnet Has a New On-line tool: The Pest Predictive Calendar

This Pest Predictive Calendar is intended to assist landscape managers, growers, IPM professionals and others in predicting the appearance of pest insects and mites in order to make more timely management decisions. By using the Plant Phenology Indicators (PPI) and Growing Degree Days (GDD) on this table you can anticipate when the susceptible life stage(s) (stage you want to target for control measures of pest insects and mites are active.)
White Pine Weevil

By: Stanton Gill

Last week we reached around 110 degree days. At this point, the adult white pine weevil generally has been active in pine plantings. Christmas tree growers and nurseries growing pines and spruces should monitor for the adults now. We have seen an increase in the number of white pines being planted in commercial landscapes over the last 5 years and this pest may increase as a problem.

Growers can monitor for the adults using a ground pitfall trap. Place a plastic cup into the ground with the lip level with the surrounding ground. Place a funnel into the cup to make a pitfall trap. Check this every couple of days for the adults. The adults wander about on the ground in April. Adults spend the winter in the leaf litter under or near host trees. On warm days they fly or crawl to the leaders of suitable hosts.

The white pine weevil is considered primarily a pest of eastern white pine. Colorado blue, Norway, and Serbian spruces, Scots, red, pitch, jack, and Austrian pines, and occasionally Douglas-fir are also attacked. Trees become susceptible to injury when they reach a height of about three feet.

The adult is a small rust-colored weevil that is about 4-6 mm long. It has irregularly shaped patches of brown and white scales on the front wings. Near the apex of the front wings is a large white patch. Like most weevils, the adult has a long snout-like beak from which small antennae arise. The larval stage, which lives beneath the bark, is white with a distinct brown head. When mature, the larva is approximately 7 mm long, legless, and slightly C-shaped.

Females mate and each deposits one to five eggs in feeding wounds and many eggs may be deposited in one terminal leader. The eggs hatch in about seven days. When the terminal is heavily infested larvae feed side by side in a ring encircling the stem. They feed downward on the inner bark of the leader. Larvae reach maturity in mid- to late July and pupate in the infested terminal. The pupal chambers called “chip cocoons” are filled with shredded wood and can be found inside the terminal at this time. Adults emerge in 10 to 15 days through small holes at the base of the dead terminal of the host plant usually in late July and August.

Control: To prevent damage the insect growth regular called Dimilin can be applied to terminal growth when the adult activity is noted among your conifers.
Imported Willow Leaf Beetle
By: Stanton Gill

The imported willow leaf beetle (IWLB), *Plagiodera versicolora*, was not considered much of a pest until more and more cut flower growers started growing willow species for cut stem sales. Also, the number of native landscape plantings incorporating willow into the landscape has provided plenty of food sources for this pest.

Adults overwinter in bark crevices or on the ground in leaf litter, and they leap into action when trees begin to leaf out. In most years we have seen them active in Maryland at around 115 - 120 degree days, which is just about now in central Maryland. After munching on a few spring greens, females lay bunches of yellow eggs on the undersurfaces of leaves – up to 750 eggs, in “clutches” of about 50 eggs each.

The eggs hatch in a few days and hundreds of larvae can be found skeletonizing leaves from below – eating the tender, green tissue between the veins. Older larvae will feed on the leaf’s upper surfaces.

Imported willow leaf beetles have some natural enemies in the forms of parasites and parasitoids, and a few predators like Asian lady bird beetles which eat IWLB eggs, and assassin bugs, which eat the larvae. Willow trees will re-flush new growth and in some cases can recoup from this feeding with acceptable levels of damage. Leave the rest to the predators and parasties.

**Killer Cold?**
By: Stanton Gill

The temperatures dipped into the 20 °F range on Tuesday and Wednesday nights in central Maryland this week. I examined some plants at 6:30 a.m. Tuesday morning and the newly emerging foliage was frozen. We will likely see some darkening growth on plants with new growth show up by next week.
Penn State Disease Update: Potential Scab Infection Period April 7
Posted: April 5, 2016: Kari Peter, Penn State Extension, notes in the current disease report that “The recent winter-like conditions do not kill scab spores and the spores continue to further mature and release. If the weather forecast comes to fruition, an apple scab infection event is predicted for April 7. If your trees have green tissue, recommendations for dealing with scab while managing cold injury are discussed.” For more details, see the full [disease report](#).

**Roseslug Sawfly**
Jessica Frakes, Thrive, Inc., is finding early activity of roseslug sawfly in Washington D.C. this week. Larvae skeletonize foliage by etching off the upper surface between the veins. Feeding by later instars creates larger holes and can defoliate plants. Look closely on the upper side of the leaves for the small sawfly larvae at this time of year. There are three species of sawflies that are commonly found feeding on roses in Maryland.

**Control:** Roseslug sawflies look like caterpillars, but since they are not, some insecticides such as *Bacillus thuringiensis* will not work. Conserve or Orthene can be used to control the larvae.

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**Boxwood Leafminers**
Jessica Frakes, Thrive, Inc., found boxwood leafminer activity in Washington D.C. on March 25, Tony Murdock, Fine Pruning, found them in Frederick on March 28, and Marie Rojas, IPM Scout, found them on March 30. Adult emergence (small orange flies) in this area usually occurs in late April. Adult females will lay eggs in the new growth causing blotchy areas the size of a pin point on the leaves.

**Control:** Systemic insecticides can be used to control this pest. An application of a synthetic pyrethroid such as bifenthrin or permethrin will kill adults, but it will also kill many beneficial organisms in the process.

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**Euonymus Leaf-notcher Caterpillar**
John McLeod, The Brickman Group, found euonymus leaf-notcher caterpillars in Northern Virginia on April 7. In Maryland, this caterpillar has been reported in Anne Arundel, Prince George’s and Baltimore counties.

**Control:** Since the damage occurs early in the season, control is not always necessary. There is only one generation of this pest and plants can recoup. If you decide to treat, control options include Conserve (spinosad), Talstar (bifenthrin), and Orthene (acephate). Bt is effective only when the caterpillars are small.
Beneficial of the Week
By: Paula Shrewsbury, University of Maryland

Ground nesting bees: Are they a beneficial or a pest?
When it comes to ground nesting solitary bees the answer may be in the eyes of the beholder! Today, I would like to discuss plasterer bees which are a group of solitary bees in the family Colletidae, sometimes referred to as colletid bees that nest in the ground.

What’s the benefit? Plasterer bees are excellent early season pollinators of a diversity of plants. These early season pollinators feed on pollen and nectar from about 38 different early blooming trees, shrubs, and herbs such as *Acer* (maple), *Vaccinium* (blueberry), *Liriodendron* (tuliptree), *Prunus*, *Ribes*, and *Amelanchier*. Plasterer bees construct subterranean nests by excavating burrows in the soil. The opening of each burrow (tumuli) are surrounded by a mound of soil. These bees are referred to as plasterer bees because they line their burrows with a polymer-like secretion. Most soil nesting colletids make a main burrow that may have up to several lateral cells or galleries underground. Each cell is provisioned by the female adult bee with food for her offspring which is a mixture of pollen and nectar. This mixture may be a semi-liquid mixture of pollen and nectar or some species make a loaf of “bee bread” with pollen and nectar. Once a cell is provisioned, the female oviposits in the cell, and then seals the cell with soil. When the larvae hatch they have a nice meal to feast upon.

Adult plasterer bees are hairy and somewhat cute. They are not aggressive and are not known to sting people. They are univoltine (1 generation / year) and adults are usually active from early-mid March to early-mid-May. When adults emerge in March they mate and then females begin foraging on flowers. To get the food back to the nest, most bees carry nectar in their crop (a special sac-like chamber in their digestive tract). Most solitary bees have an area of stiff hairs, called a pollen brush or scopa, into which pollen grains are pushed. These hairs are located either on the underside of the abdomen or along the hind legs.

Why would anyone consider these cute little bees a pest? Although plasterer bees are solitary bees, it is common to see numerous, sometimes hundreds, of burrows in the same location. Basically, these bees can exploit a favorable habitat when they find one. Plasterer bees like areas of lawns where the soil is somewhat sandy and well drained, and the turf is thin (ex. unhealthy). Many homeowners find “hundreds” of soil mounds in their lawn unsightly. In addition, people who are not familiar with solitary bees, and the fact that they won’t sting, tend to get a little anxious when they see hundreds of bees flying around their yards. Be sure to inform your clients, friends, etc. that these little guys are great pollinators and not aggressive – so no worries! Even though the soil mounds are unsightly in the lawn you do not want to actively kill plasterer bees. I recommend
two practices to reduce the abundance of plasterer bees in a lawn. Both attempt to make the habitat unfavorable as nesting sites for the bees. One is to renovate the lawn area by reducing the amount of sand and over-seed to thicken the stand of turf. Now would be a good time to do this since bees are foraging and creating new nests. You would like them to go somewhere else and make their nests. Also this is a pretty good time of year to renovate lawns in general. The other practice that I have been told works but have not tried myself, is to heavily water the area where the bees are nesting, making the site unfavorable and the bees will search out other nesting sites. Again now is the time of year to do this method to have the least detrimental impact on the bees. Hopefully, you can conserve these excellent pollinators and keep your clients happy!

**Weed of the Week**

By: Chuck Schuster, University of Maryland Extension

Soil temperatures continue to bounce around. As you can see from the photos below it has been a challenging time to predict what is going to happen next. All across the state we have seen record lows, and even snow on the Eastern Shore this week. Pre-emergent products for crabgrass should be down now as the soil temperatures can change quickly at this time of year. Japanese stiltgrass is going to be the next weed to get ahead of with pre-emergent products. Crabgrass has germinated in some areas, as soils warm up and stay warm, more of it will be noted.

Our weed of the week this week is a new one. Often found in gardening magazines or catalogs as a potential groundcover, it also is viewed by some as an invasive. I know that many like this plant, it is one that some have yet to determine its economic value. White spotted deadnettle, *Lamium maculatum*, is a low growing ground cover growing from six to twenty inches in height, with an individual plant spread of up to five inches. Similar to purple deadnettle, it is a member of the mint family and has an erect square stem that is hollow with fine pubescence. The leaves vary in overall shape, from ovate to heart shaped. The root system is fine and fibrous. The softly pubescent leaf blades are up to eight inches long. This plant is spotted and toothed with long petioles. It produces flowers that are from .75 to 1.0 inch long. These flowers will be pink to purplish in color on the upper portion and the lower portion will be white with purple dots. Flowering can occur from April through late summer.

*Flower color of white spotted deadnettle varies from pink to purple to white with purple spots*

*Photo: Ginny Rosenkranz, UME*
For those attempting control of white spotted deadnettle, it can be accomplished using post emergent products the will include Imazaquin (Image), Metribuzin (Sencor) turf only, and 2,4 D + MCPP. Fall application of Dichlobenil (Barrier) (pre-emergent) can help prevent this weed from being an issue in the spring.

**Plant of the Week**
By: Ginny Rosenkranz, University of Maryland Extension

*Fothergilla gardenii*, dwarf fothergilla, is a native shrub that grows up to 3 feet tall and 4 feet wide in full sun to partial shade, although it flowers best in full sun. It prefers a moist but well drained acidic soil rich in organic compost and is cold tolerant from USDA zone 5-8. Like a lot of native shrubs, it can become a colony with spreading suckers. The white bottlebrush-shaped flowers are scented like honey and are perched on the top of each branch. They are very showy but without petals. The white filaments and yellow anthers of the male flower gives a light and airy look in the garden that lasts for 10-14 days. The flowers are often open before the dark green foliage emerges. The foliage stays a dark green to blue green all summer, with marginal teeth on the top half of each leaf. In the autumn the leaf color is a bright yellow, orange or red. Fothergilla can be planted in native plant areas, in shrub borders, foundation plantings or as a small hedge. At this time there are no serious insects or diseases listed.

![The bottlebrush flowers have a honey-like scent](Photo: Ginny Rosenkranz, UME)

### Phenology

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PLANT STAGE (Bud with color, First bloom, Full bloom, First leaf)</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cercis canadensis</em> (redbud)</td>
<td>Full bloom</td>
<td>Ellicott City (April 5)</td>
</tr>
<tr>
<td><em>Spirea vanhouttei</em> (bridal wreath spirea)</td>
<td>Full bloom</td>
<td>Ellicott City (April 7)</td>
</tr>
</tbody>
</table>

### Degree Days (As of April 6)

<table>
<thead>
<tr>
<th>Location</th>
<th>Degree Days</th>
<th>Location</th>
<th>Degree Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annapolis Naval Academy (KNAK)</td>
<td>146</td>
<td>Baltimore, MD (KBWI)</td>
<td>156</td>
</tr>
<tr>
<td>College Park (KCGS)</td>
<td>173</td>
<td>Dulles Airport (KIAD)</td>
<td>156</td>
</tr>
<tr>
<td>Ellicott City (E247)</td>
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<td>Fairfax, VA (D4092)</td>
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<td>Frederick (KFDK)</td>
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<td>Greater Cumberland Reg (KCBE)</td>
<td>120</td>
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<tr>
<td>Laytonsville (C2463)</td>
<td>75</td>
<td>Martinsburg, WV (C1672)</td>
<td>110</td>
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<tr>
<td>Natl Arboretum.Reagan Natl (KDCA)</td>
<td>228</td>
<td>Rockville (C2057)</td>
<td>201</td>
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<tr>
<td>Salisbury/Ocean City (KSBY)</td>
<td>205</td>
<td>St. Mary’s City (St. Inigoes, MD-KNUI)</td>
<td>220</td>
</tr>
<tr>
<td>Westminster (KDMW)</td>
<td>135</td>
<td></td>
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</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:** 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
Commercial Horticulture Conferences

National Firewood Workshop
Thursday, April 21st, 2016
8:30 am—4:30 pm
Continuing Education Credits approved by ISA, SAF, ML
http://extension.umd.edu/events/thu-2016-04-21-0900-national-firewood-workshop

Pesticide Recertification Conference (Eastern Shore)
June 3, 2016

Pesticide Recertification Conference
June 10, 2016
Location: Montgomery County Extension Office, Derwood, MD

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
rosnkrnz@umd.edu

Nancy Harding
Faculty Research Assistant

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