Coordinator Weekly IPM Report:
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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)

Beneficial of the Week

Ambrosia Beetle Activity
By: Stanton Gill

I received several calls on April 9 asking if anything had changed with the ambrosia beetle activity. For Friday (April 9) though Monday April 11, I found no adult beetles in our alcohol baited traps. I checked these traps at CMREC this morning (April 15) and only a couple of ambrosia beetles were present and they were not Xylosandrus species. It is warm during the day, but the cool nights seems to be keeping the flight activity down. By Monday it is supposed to go into the 70 °F range. We might begin to see more activity when the temperature rises. I will send out a special report on Monday if this situation occurs. For now, I just don’t see any major activity yet.

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.)
Cold Weather Just Will Not Give Up
By: Stanton Gill

The climatologists have said that with global warming we can expect wild weather swings. I was seeing an example on April 9. I awoke at 6:10 in the morning in Westminster to see a thick snowcover on the ground. The daffodils were nodding over with the snow. Cherry trees in full bloom were coated in snow. By 9:30 it changed to hail, then to rain. The sun came out for 10 minutes, then the snow blew back in again with another bout of hail. Rain and snow alternated through the early afternoon. The day finished with clear skies and temperatures plummeting into the mid 20 °F range. We expect to continue to see new growth on plants negatively impacted by the cold weather. The damage will show up in the upcoming weeks.

An unusual April snowfall blanketed the ground on April 9 in Westminster
Photos: Stanton Gill

Mark Schlossberg, ProLawn Plus, Inc., photographed damaged turf areas after a landscaper applied mulch when frost was on the turf

Japanese euonymus is another landscape plant damaged by the recent cold period
Photo: Kevin Nickle, ProLawn Plus, Inc.
Japanese Maple Problems
By: Karen Rane

The Japanese maples in my own yard have suffered greatly over the past two weeks. First, sapsuckers have been actively attacking the branches (Fig. 1). The damage is so severe that large patches of bark have been removed, exposing the wood. The entire branch is not yet girdled, but it’s getting close. Then came last week’s cold weather, which caused two types of injury to the emerging leaves. Some tender shoots (stems and leaves) were killed outright (Fig. 2). Leaves that were more fully developed when cold temperatures hit now have tan, bleached areas on otherwise normal foliage (Fig. 3). It remains to be seen how well these trees recover from these onslaughts.

Deer Ticks
By: Stanton Gill

With the weather warming up as we progress into the weekend, watch out for deer tick activity. The cold weather of the last 10 days suppressed their activity, but now that it is warming up we are seeing an increase of ticks. We had one nursery manager come into CMREC with a deer tick lodged in his neck and wanted it identified. It was a deer tick, unfortunately. Check yourself regularly if working at the edge of the nursery near woods and when working in tall grass areas.

Besides the worry about Lyme disease being transmitted by deer (black legged) ticks, we have the relapsing fever group, *Borrelia miyamotoi*, which is another pathogen carried by *Ixodes scapularis*. It was first described from Connecticut in 2001, but wasn’t linked to human disease until cases in Russia were documented in 2011. Since then, a number of human cases have been described. There is serological evidence for both symptomatic and asymptomatic people. Those with symptoms present with a viral-like illness with fever, chills, fatigue, headache, myalgia, and arthralgia. It is not detected by current Lyme tests and there is no FDA approved clinical test yet.
On the tick control front, there have been a few new developments, but not much practical or rather different for homeowners yet. Licensing for a rodent (reservoir) target Lyme disease oral vaccine bait is in progress by US Biologic Inc. One study has been published on it, and there are some residential trials being done. The entomopathogenic fungus *Metarhizium anisopliae* is now commercially available, at least in limited quantities, from Novozymes Biological Inc and Monsanto as Met52.

**Volutella on Pachysandra**
Brian Scheck, Maxalea Inc., found pachysandra infected with volutella in Cockeysville. He noted that late fall of last year, the planting bed was full and fine. He suspects that the leaf removal was done in the rain or when the groundcover was wet and the disease was spread by the blowers. Dave Clement, HGIC, notes that volutella is an opportunistic pathogen and goes into wounded tissue. Once cankers have formed on stems, it is too late to apply a fungicide. One option is to cut the foliage back again and then make several fungicide applications as the plants leaf out again to protect the new growth as it emerges.

**Damage on Turf**
Brian Scheck, Maxalea, Inc., sent in a photo of damage on turf. Brian reported that the “client called due to turf burn in certain areas off the patio thinking it was from a lawn care application. Ended up being burned by bleach, which was used to clean the patio furniture.” Brian also mentioned “another client with turf that was damaged a few weeks ago from salt that was in the product the pressure sprayer company used to clean their roof.” Knowing recent activities in an area is useful in determining causes of some problems.

**Problems with Southern Magnolias**
By: Stanton Gill and Karen Rane

We are receiving e-mails and calls reporting an unusual number of large branches on southern magnolia with severely scorched leaves, and in some cases, whole branches dying back. It might be that the warm fall and early winter weather did not allow southern magnolias to harden of properly. The severe cold of January, with the sudden temperature drop, may have caused a significant amount of damage that is showing up this spring.
Scale Insects
We have been receiving reports of scale insect infestations on a variety of woody plants this spring. Reports include Japanese maple scale, fletcher scale, pine needle scale, and white prunicola scale. An optimal time to control many scale insects is in the crawler stage. As we find crawlers or receive reports, we will include this information in the reports as we have done in previous years to help you time control measures.

Pine Needle Scale: This native armored scale is a key pest of pines in landscape, nurseries, and Christmas tree plantations. Preferred host plants include white pine, Scotch pine, mugo pine, and Austrian pine; but other pines, spruces, firs, and Douglas firs, are frequently attacked. Pine needle scale overwinters as deep reddish colored eggs protected under the female’s wax covering; however some females may survive winter and lay eggs in spring.

The adult female cover is white, elongate and tapers at one end (oyster shell-shaped) and is ~3 mm long. The male cover is smaller, white and more slender and about 1mm long. There are two generations a year and the overwintering eggs usually hatch when the degree day accumulations are approximately 283 DD and the second generation at approximately 1648 DD (late July). Eggs may hatch over a 2 to 3 week period. Light infestations do not cause serious damage. Heavy infestations may cause yellowing of needles, stunting and dieback.

Green Fruitworm and Rosy Apply Aphid
Penn State has issued a pest update reporting that they “are seeing indications that the numbers of green fruitworms and rosy apple aphids will be high this season. Both pests tend to flare in a cool, wet spring due to suppression of predators and other biocontrols.” The update includes photos and descriptions of these insect pests. Contact Stanton Gill at 410-868-9400 for control options in your clientele’s landscapes.
Bernie Mihm, Fine Earth Landscape, photographed vole damage on ‘Otto Luken’ cherry laurel. He noted that he saw another plant where the damage was worse than this one.

Boxwood Leafminer Adult Emergence
Chris von Kohn, US National Arboretum, found adult boxwood leafminers active in the garden on April 14. Adult females will lay eggs in the new growth causing blotchy areas the size of a pin point on the leaves. **Control:** Abamectin can be used to control adults now, but it gives better control when applied after the adults have laid eggs.

Smooth Patch on Oak
By: Karen Rane

Roy Good sent us a photo of an oak showing symptoms of smooth patch. It is a fungal infection of the outer (dead) bark, resulting in loss of some of those dead layers. The fungus does not penetrate the bark to colonize living tissue, so it does not affect the health of the tree. It is fairly common - I’ve seen it on oaks and tulip poplars in wooded areas. No treatment is necessary.
Beneficial of the Week
By: Paula Shrewsbury, University of Maryland

Look for an orange-pink substance on obscure scale on oaks

A few days ago Andrew Ristvey (UME Extension Specialist) inquired about an orangey-pink colored substance he recently found on obscure scale (Melanaspis obscura) at a nursery on the eastern shore. Obscure scale is an armored scale that is a key pest on oaks, especially pin oaks. The orangey-pink colored substance is a naturally occurring entomopathogenic fungus, likely Cosmospora (formerly Nectria) diploa or pink scale-fungus, which is known to attack obscure scale. There are several species of fungus in this genus that specialize on armored scale insects and are known to periodically cause epizootics in scale populations. Epizootics usually occur when scale populations are high which allows the fungus spreads quickly through population causing disease and death of the scales. Pink scale-fungus was recorded attacking obscure scale back in 1971 from UMD entomologists Dr. John Davidson and Monya Stoetzel when they did extensive research and a publication on the biology of obscure scale. I have seen this fungus on obscure scale on occasion over the years. Pink-scale fungus develops within the scale body, followed by orangey-pink colored fungal fruiting bodies protruding from the edges of the waxy scale covers. Fruiting bodies will then disperse and infect other obscure scales.

Obscure scale is known be attacked by at least 8 species of parasitic wasps, over 15 species of predatory mites and ladybeetles, and the pink-scale fungus. Therefore, pink scale fungus is one of a complex of biological control agents that together provide biological control of obscure scale.

Weed of the Week
By: Chuck Schuster, University of Maryland Extension

Both air and soil temperatures continue to be unsettled. Soil temperatures saw lows this week of 38 °F to highs of 52.4 °F. Light snow fell on April 9 in some areas. Soils remain somewhat dry with the breezy weather taking the small amounts of moisture that is provided. Crabgrass has been noted in most areas of Maryland. Other weeds are becoming showy at this time and there is a lot of concern about the efficacy of pre-emergent products with the lack of adequate moisture that is needed to activate them in some regions.

Common chickweed, Stellaria media, is a winter annual that prefers cool moist areas. Chickweed grows in a dense prostrate fashion in both turf and ornamental beds.
Reproduction is by seed, usually germinating in late summer or early spring. Leaves are opposite, egg-shaped and pointed at the apex. The root system is fibrous and shallow and easily detaches when the foliage is pulled. Common chickweed can produce more than 2,000 seeds per plant under ideal growing conditions. These seeds can remain viable in the soil with a germination rate above 90% for more than 30 months. Several important nematode species can infest common chickweed, so control is beneficial.

Common chickweed can be distinguished from mouseear chickweed by noting the presence of hairs on the leaf blades. Mouseear chickweed has a hairy leaf blade and will root at the nodes.

Control of chickweed can be achieved through either pre emergent or post emergent pesticides. To prevent chickweed germination, benefin, under trade name Balan, can be used in the late summer. Chickweed in ornamental beds can be controlled with an early spring application of Snapshot which is a mixture of isoxaben and trifluralin, but requires one half inch of rainfall or irrigation within three days to properly activate. Post emergent chickweed in turf can be controlled by many of the broadleaf herbicides. Post emergent chickweed in beds can be achieved through the use of a glyphosate product. It should be noted that glyphosate resistance is being noted in some areas.

**Plant of the Week**

By: Ginny Rosenkranz, University of Maryland Extension

*Aquilegia canadensis*, columbine, is a native herbaceous perennial that blooms in April to May in dappled sunlight and thrives in a wide range of soil types. It does prefer a rich organic soil that maintains moisture, but the addition of compost and a light application of mulch will help keep the soil moisture available to the plants. Columbine will only live for the required 3 years to be considered an herbaceous perennial, but it seeds itself so freely it seems to live forever, naturalizing to create large colonies in its ideal growing conditions. The bright red and yellow flowers are held on top of slender 2-3 foot stems and seem to dance in the slightest breeze. If the springtime night temperatures are cool, columbine may flower for up to 6 weeks and the color of the flowers will be bright scarlet and intense yellow, while the warmer nights will produce softer shades of pink and pale yellow. The bicolored nodding flowers have bell-shaped yellow inner petals surrounded by red sepals that sweep back to create 5 red slightly curved spurs. The bright colors of the flowers attract the earliest hummingbirds to the garden and the genus name is for the eagle as the spurs look a bit like eagle talons. The soft green foliage is clustered around the central stems and will remain mostly evergreen in USDA zones 3-8, and continues to look
good all summer as long as the soils stay moist. Columbine can be planted in pollinator gardens, woodland gardens, cottage gardens or anywhere they can be allowed to grow and naturalize. *Aquilegia canadensis* has good resistance to the leafminer which can severely damage other columbine species leaves.

**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>Liriodendron tulipifera</em> (tuliptree)</td>
<td>First leaf</td>
<td>Ellicott City (April 11)</td>
</tr>
<tr>
<td><em>Phlox subulata</em> ‘Snowflake’</td>
<td>First bloom</td>
<td>Ellicott City (April 15)</td>
</tr>
<tr>
<td><em>Podophyllum peltatum</em> (mayapple)</td>
<td>First leaf</td>
<td>Ellicott City (April 15)</td>
</tr>
</tbody>
</table>

**Degree Days (As of April 13)**

<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>166</td>
<td>Baltimore, MD (KBWI)</td>
<td>175</td>
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<tr>
<td>College Park (KCGS)</td>
<td>202</td>
<td>Dulles Airport (KIAD)</td>
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<tr>
<td>Ellicott City (E247)</td>
<td>157</td>
<td>Fairfax, VA (D4092)</td>
<td>217</td>
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<td>Frederick (KFDK)</td>
<td>108</td>
<td>Greater Cumberland Reg (KCBE)</td>
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<td>Gaithersburg (KGAI)</td>
<td>152</td>
<td>Martinsburg, WV (C1672)</td>
<td>124</td>
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<tr>
<td>Natl Arboretum.Reagan Natl (KDCA)</td>
<td>251</td>
<td>Rockville (C2057)</td>
<td>220</td>
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<tr>
<td>Salisbury/Ocean City (KSBY)</td>
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<td>St. Mary’s City (St. Inigoes, MD-KNUI)</td>
<td>244</td>
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<tr>
<td>Westminster (KDMW)</td>
<td>149</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

Thresholds in: Fahrenheit F

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

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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.

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