



**TPM/IPM Weekly Report for Arborists,
Landscape Managers & Nursery Managers
University of Maryland Cooperative Extension
Central Maryland Research and Education Center**

May 19, 2006

Regular Contributors:

Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury

Disease Information: Ethel Dutky, David Clement, and Rich Anacker (MDA)

Weed of the Week: Chuck Schuster

Cultural Information: Ginny Rosenkranz

Fertility Management: Andrew Ristvey

We need you – please call in if you are finding insect, disease, weed cultural plant problems. Your input will help us keep this weekly report up on the leading edge. Send submissions to Sklick@umd.edu or Call Stanton Gill at 301-596-9413. Thanks! We look forward to hearing from you.

Rosy Apple Aphid, *Dysaphis plantaginea*

Rosy apple aphid is not a problem every year, but this year it is out in large numbers on crabapple and apple trees at a number of sites including Westminster, Olney and Brookeville. This aphid is black, shiny and the cornicles are long and flanged at the tips. As the aphids mature they turn bluish-gray. The rosy apple aphid injects saliva into plants when they feed. If they feed on leaves of fruit clusters, the saliva is translocated through the phloem to nearby fruit. Affected fruit is small, deformed and misshapen. They have been feeding through April and in May are now concentrating on the newly emerging leaves of tip growth. They will be active on crabapples and apple through the end of June. In June they produce winged forms (alates) which fly to plantain to feed and continue development.

Monitoring: Examine tip growth of plants at this time of year. Ladybird beetles will feed voraciously on rosy apple aphid.

Control: On non-fruit bearing trees materials such as Merit will give good control. We just tried TriStar on a population in Brookeville this week and the control level looked very good. If lady beetles, flower flies, or other natural enemies are present chemical controls may not be warranted.

Other Aphids

Joanne Lutz reported green peach aphids on spirea, roses, and several perennials. She is also seeing a lot of aphids on crabapple, purple leaf plum, and pyracantha. Joanne Lutz reported woolly aphids on purple beech. Natural enemies should move in and reduce these populations.

Borer Control in Nurseries

In previous weekly Pest Alerts we reported that for borer control in the landscape you could use the pyrethroid products Onyx (bifenthrin) or Astro (permethrin). We also reported that Onyx was the product to use in nursery. In talking with the FMC Company they are still working with EPA to receive approval for Onyx in nurseries. We will keep you posted when it receives the EPA and

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state registration approval for nursery use. However, there is a pyrethroid product labeled for borer (many clearwing and beetle borers) control in nurseries. This product is Perm-Up 3.2EC made by United Phosphorous Inc. The active ingredient is permethrin and it contains the same amount of a.i. (36.8%) as the Astro product. Perm-Up 3.2EC is also labeled for landscapes.

White Grubs

While digging in the turfgrass areas in Westminster this week, I (Stanton) was finding Japanese beetle grubs in the upper 1 – 1.5 inches of the soil profile. They appeared to be actively feeding and I did not see any pupation at this time. This is good – that means we have a little more time before those adult beetles start eating our ornamentals.

Control: Dylox would provide more effective control of these late instar grubs, but at this point in the season is it really worth it? Good question. It is usually not worthwhile since turf is healthy and actively growing at this time of year and therefore tolerates more grub feeding damage. Control levels would be limited to these late instar grubs and would not affect the population of the next generation (late summer / fall 2006) since adult beetles can fly in from other areas. To target grubs for the upcoming generation (late summer / fall 2006) applications of imidacloprid (Merit products) or halofenizide (Mach2 products) can be applied from mid May through mid July to achieve optimal control. If using these products as a preventative (before pests are present) you should consider applications where historically you have had problems, not broadcast applications.

Mimosa Webworm (*Homadaula anisocentra*)

First instar larvae are active on honeylocust in Germantown this week. The larvae are beginning to feed and make webs on the branches.

Monitoring: Look for webbing on tips of honeylocust

Control: Prune out infested webbed branches. Bt, Conserve or Confirm can be applied. Controlling the first generation larvae decreases the damage from the second and third generations of mimosa webworm.



Gypsy Moths

Louis Schweigman, Akehurst Landscape, sent in a third instar gypsy moth larva that was found in White Marsh.

Control: Conserve or Confirm can be applied.



Cankerworms

Joanne Lutz is finding cankerworms feeding on elms and oaks in the Northwest Washington area. As mentioned in last week's report these caterpillars are finishing up and moving on to their pupal stage so control measures would not be useful.

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Cottony Camellia Scale

Joanne Lutz found the crawlers of cottony camellia scale on May 18th in Washington, D.C. on yews and *Ilex* sp.

Control: Only apply control if populations are great enough to warrant it.

San Jose Scale, *Quadraspidiotus perniciosus*

Nymphs of San Jose scale started emerging this week from the overwintering females. The bright yellow crawlers are about the size of the end of a sharp straight pin. Each emerging crawler will search for 12 - 24 days before settling down. The whole emergence process should continue over the next 14 - 21 days.

Monitoring: Look for crawlers using a 10 -16 X hand lens. This scale can be found on crabapple, flowering and edible plums, flowering and edible peaches, ornamental and edible pears.

Control: For best control you want to target the crawler stage. Apply Distance or Distance and 1 % horticultural oil.



Euonymus Scale (*Unaspis euonymi*)

Euonymus scale is now in the crawler stage in the Baltimore area this week.

Control: Distance and oil. Be sure to get coverage of the foliage and stems where scales are active.

Winged Euonymus Scale (*Lepidosaphes yangicola*)

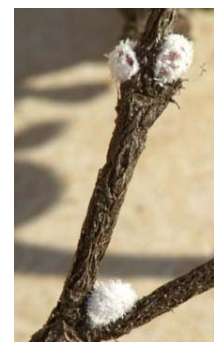
Winged Euonymus scale is still in the egg stage. No crawlers yet - we will let you know when crawlers are observed.



Azalea Bark Scale

Joanne Lutz is also finding azalea bark scale adults on azaleas in Washington D.C.

Control: Only apply control if populations are great enough to warrant it.



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Lecanium scale

Marty Adams reported lecanium scale on yellowwood in Ellicott City on May 15th. Joanne Lutz is seeing lecanium scale on elm trees in Northwest Washington D.C. Crawlers should be emerging in the next couple of weeks. We will let you know.

Azalea Lace Bug, *Stephanitis pyriodes*

Joanne Lutz found azalea lace bug nymphs this week in Washington D.C. on azalea. In College Park 1st generation adults are now active.

Monitoring: Look for yellow stippling of new foliage on azaleas. Look on underside of foliage for nymphs, adults, and black fecal spots.

Control: Horticultural oil will reduce populations if you provide thorough coverage on the underside of foliage. Applications of imidacloprid and other labeled neonicotinoids should provide control. Many products are labeled for lace bugs.

Hawthorn Lace Bug, *Corythuca cydoniae*

Eggs have just started hatching in College Park this week. Wait until most of the eggs have hatched before applying controls, unless you are applying a systemic such as imidacloprid. If plants have high numbers of eggs (patches of black fecal spots covering eggs on underside of leaves) you might want to apply systemics now so it will be active in the plant as the eggs continue to hatch and nymphs begin feeding. Hawthorn lace bug feeds on hawthorn, cotoneaster, and pyracantha.

Leaf Galls (*Exobasidium* spp.)

Joanne Lutz reported galls caused by *Exobasidium* spp. on azalea and camellia.

Monitoring: Early symptoms are swollen or puffy portions on newly expanding leaves, shoots, buds or flowers. The galls range in color from green, to pink or red depending on the part of the plant infected.

Control: Remove galls by hand before you see the white reproductive spores develop.



Guignardia Leaf Spot on *Parthenocissus* (Boston Ivy)

Joanne Lutz is seeing guignardia leaf spot on *Parthenocissus tricuspidata* (Boston Ivy)

Monitoring: Look for angular, tan spots in the spring and summer. Small black dots (fungal fruiting structures) can be found after spots enlarge.

Management: Avoid wetting foliage as much as possible when watering. If leaves stay wet for several hours, you can apply a fungicide such as Protect T/O, Cleary's 3336 or Domain FL

Powdery Mildew

Joanne Lutz is starting to see powdery mildew mycelium on *Pyracantha* this week in Washington D.C.

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Phyllosticta Leaf Spot on Witch Hazel

Marty Adams reported finding *Phyllosticta* leaf blight on *Hamamelis* 'Arnold's Promise' on May 15th in Reisterstown. Joanne Lutz is seeing it in Washington D.C.

Management: At this time no management is needed. Conditions favorable for infection are no longer present (cold and wet).

Bacterial Fireblight

The rains this last week brought out the worst with this disease. We picked up early symptoms of fireblight on May 11 near CMREC.

Monitoring: Examine crabapples, apple trees and pear trees for injury.

Control: Prune out infected branches. Cut when it is dry out and cut several inches below the cankered stems.



Anthracnose

After the rains last week we found anthracnose symptoms just starting on London plane trees in the White Marsh area.

Monitoring: Examine foliage of sycamore and London plant trees.

Control: The weather will affect how severe this problem is in 2006. The dry weather up to this point has kept this disease pretty much in check.

Home and Garden Information Center: Crown Galls (*Agrobacterium tumefaciens*)



Agrobacterium gall on Euonymus



Agrobacterium gall on Euonymus
close-up

Crown gall is caused by a soil inhabiting bacterium, *Agrobacterium tumefaciens*. The disease severity can vary depending on the host, but host mortality is usually caused by secondary pathogen invasion. Infected plants are also predisposed to drought and winter injury.

The most obvious symptoms are the galls or growths that usually occur on the twigs, stems and roots near the base of the plant at the soil line. Gall size can vary and are usually spongy when young, but the gall becomes hard and woody with age. Galls can also appear higher in the plant canopy, on twigs and branches, well above the soil line. The color of galls will vary from cream or green on young roots and stems, to normal bark color on older stems and roots. The outer

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tissue on older galls will often crack, become rough, and will frequently slough off. Plants that are infected late in the growing season may not show symptoms until the next season. Crown gall bacteria can be present in soil, on contaminated tools or carried by water to susceptible host plants. These bacteria can also survive in contaminated soil for years without a susceptible host. Crown gall bacteria need fresh wounds to cause an infection, which can be caused by transplanting and cultivating activities, feeding damage from nematodes or soil insects. Galls form within 2 - 4 weeks after infection on actively growing plants. As outer surfaces of the galls sloughs off, bacteria are returned to the soil.

Management: Removal of galls will not cure infected plants because bacterial genes already inserted into the host's cells will continue to transform additional cells throughout the plant and produce galls in other locations. Removal of infected plants will lower bacterial populations in the soil, however low populations of soil bacteria still persist as surface colonies on many plant species regardless of their susceptibility to crown gall. Exclusion of infected plants by inspection of all nursery stock prior to planting is critical to prevent introduction into new planting beds. However, late infections on dormant nursery stock may not always show obvious symptoms. If crown gall symptoms are already present on existing plants consider selection of other non-susceptible plant material.

Beneficial of the Week: Antlions

Suzanne, Shannon and I (Stanton) were visiting John Prouty's Wise Acres Farm in Calvert County this week and we found a very cool predator that we thought you would enjoy seeing. This predator is called the antlion and is in the family Myrmeleontidae. We noticed small "pits" in the soil. The pit is funnel-shaped so when ants crawling along the ground come across it they slide down the pit where the antlion nymph then reaches out of the ground, grabs the ant with its long sickle-shaped jaws, pulls the ant below the soil and devours it. If you dig around in the center of the pit you will find an antlion nymph which is flattened, dusty brown in color and 1/8 - 1/4" long. They are most common in areas where soil remains on the dry side. This is just one of the free predators that move into areas when cover sprays of long residual pesticides are avoided.



Weed of the Week: Yellow Wood Sorrel

Yellow Wood Sorrel (*Oxalis stricta*) is a weed common to the northeast. It is often found in shaded areas and grows as an annual as well as a perennial. The plant may spread by slender rhizomes and produces seed from its yellow flowers. The leaves are smooth, palmately compound and are divided into three heart shaped leaflets. Each leaflet has a center crease allowing the leaf to fold upward in half. The plant will fold its leaves at night and again reopen them in the morning. Control can be obtained through the use of many pre and post emergence broadleaf weed control products if used early in the season and through the use of glyphosate products as a post emergent herbicide in landscape beds. Mechanical cultivation and mulching are also effective in the control of this prolific weed in landscape beds also.



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What's in Bloom?

Plant	Plant Stage (Bud with color, first bloom, full bloom, first leaf)	Location
<i>Rhododendron</i> 'Gibraltar'	Full Bloom (May 15)	Reisterstown
<i>Enkianthus campanulatus</i> 'Red Bells' (Redvein Enkianthus)	Full Bloom (May 15)	Reisterstown
<i>Cladrastis lutea</i> (Yellowwood)	First Bloom (May 15)	Ellicott City
<i>Cornus canadensis</i> (Bunchberry Dogwood)	Full Bloom (May 15)	Silver Run (Carroll County)
<i>Clematis</i> 'Westerplatte'	First Bloom (May 15)	Silver Run (Carroll County)
<i>Linnaea borealis</i> (Twin Flower)	First Bloom (May 15)	Silver Run (Carroll County)

Degree Day Information (as of May 18):

Baltimore, MD (BWI)	486
Hagerstown, MD	383
Mechanicsville, MD	467
National Arboretum	574
Salisbury	380

June Programs

June 6, 2006

Procrastinator's Recertification Conference

Montgomery College, Germantown Campus
For more information: 301-590-2807

June 13, 2006

MAA Pest Walk in June

(5 pm. To 8 p.m.)

Hood College

For more information: 301-596-9413

June 14, 2006

LCA - Good Design, Better Business

Country Springs Nursery, Ellicott City, MD

For more information: 301-948-0810;

<http://www.lcamddcva.org>

June 15, 2006

MNLA Field Day

For more information: 410-823-8684;
www.mnlaonline.org

June 22, 2006

Chesapeake Green Interiorscape Conference

Rawlings Conservatory and the Botanic Garden of Baltimore

For more information: 410-823-8684;
www.mnlaonline.org

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