



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

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Go to [www.agnr.umd.edu/IPMNET](http://www.agnr.umd.edu/IPMNET) to view past issues of this IPM report and to find about upcoming classes and seminars. Please call in if you are finding insect, disease, weed or cultural plant problems. Send submissions to [Sklick@umd.edu](mailto:Sklick@umd.edu) or call Stanton Gill at 301-596-9413.

**Equinox**

We reached Equinox on June 21<sup>st</sup> so you have 15 hours of sunlight to do your work. What a great time of the year.

**Drought**

The weather over the weekend was great for sales of plants at the garden centers with the low humidity and bright sunshine. Now, the bad news. This California style weather is drying out the soil rapidly and plants are stressing in many landscapes this year. Un-irrigated lawns are turning brown. We did get rain in the last 2 weeks (and now today) but it was in localized areas with many areas receiving scattered showers and little else. The ground is very dry right now and the temperatures reaching the mid-90's this week is creating severe stress for plants. If your customers have newly transplanted plants they will need to water them two to three times a week with long, soaking waterings. A trickle irrigation system would be the best way to apply water. I said it last year and I will say it again this year – Those nursery managers with trickle irrigation can pat themselves on the back this year for the foresight of installing and using trickle irrigation. You will be running it regularly at this time of year but it will make a huge difference in the quality of your plants in drought years like 2007 and 2006.

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## Diseases of Witch Hazel

Casey Sclar, Longwood Gardens, and Bob Mulrone, Delaware State University Cooperative Extension, evaluated various cultivars of witch hazel to see which ones were most susceptible and which were more resistant to *Phyllosticta* which is a disease that attacks witch hazel and causes tip dieback. The results were published in the American Nursery Magazine in the January 2006 issue. They found that *H. x intermedia* 'Arnold Promise' and *H. x intermedia* 'Pallida' were most susceptible to the disease. Suggested alternatives include *H. mollis* 'Early Bright' and 'Princeton Gold', *H. x intermedia* 'Primavera', *H. vernalis*, *H. x intermedia* 'Jelena' and 'Luna' and *H. virginiana*. Use this information in deciding which witch hazel (no pun intended) to use in your customers' landscapes and to grow in your nurseries.



## Japanese Beetles

Yes, they are out and feeding in a lot of areas. So far, overall their numbers appear to be down based on the calls and e-mails we are receiving from most areas of the state. The drought last year and this year appears to be working against the Japanese beetle population – so far. Tony Murdock reported beetles in Hyattstown and Frederick (where numbers have been very high the last two years). There are also Japanese beetles in LaPlata where Brian Clark reports that adults are beginning to lay eggs. **PAULA SHREWSBURY IS LOOKING FOR LARGE NUMBERS OF JAPANESE BEETLES FOR A RESEARCH PROJECT. IF YOU HAVE AN AREA WITH LOTS OF BEETLE ACTIVITY PLEASE CONTACT PAULA AT: [pshrewsbury@umd.edu](mailto:pshrewsbury@umd.edu)**

**Control:** Treating Japanese beetle preferred host trees with a neonicotinoid insecticide now should provide control. Acephate (Orthene) or pyrethroids (Astro) work well for adult control. For those who prefer a more biorational approach, use Azadirachtin (a neem product) when beetle activity begins. Repeated applications will be necessary. Note: Dan Potter and his group from the University of Kentucky found that when Japanese beetles adults feed on their host plants, the feeding damage results in more Japanese beetles being attracted to the plants. Therefore, controlling beetles early (before they cause damage) should ultimately reduce your overall beetle densities.

## White Grubs in Turf

White grubs are the immature stage of beetles in the family Scarabaeidae. Several of our scarab beetle adults (ex. Japanese beetles, Masked chafers, Oriental beetles- photo shows adult) are now actively feeding, mating, and beginning to lay eggs. As mentioned above the numbers of adult Japanese beetles active right now appear to be lower than usual. However, if your turf areas and nearby ornamentals have high beetle activity, or if beetle numbers start to pick up over the next few weeks, you will want to apply a soil insecticide to your turf to control the larval stages (white grubs) of the beetles.



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**Monitoring:** For now visually watch for adult activity and use this as a predictor of the potential for grub problems or wait 2 to 3 weeks and monitor for grub activity in your soil. Note that the eggs of white grubs need moisture to hatch. If this dry weather pattern continues into August there should be high egg mortality and no need to treat for grubs. Of course the exception will be for irrigated turf so be sure to monitor these areas closely for white grubs.

**Control:** The best products to use at this time are Mach II (an insect growth regulator), or a neonicotinoid product (Merit, Arena, or Meridian). After late August it will be too late to effectively control white grubs with these products. If you have to apply controls in September then Dylox would be the best insecticide option. Entomopathogenic nematodes (*Heterorhabditis bacteriophora*) can be used for those who prefer biological control. Be sure to follow directions carefully for good control. For information on using and purchasing nematodes go to: <http://www.oardc.ohio-state.edu/nematodes/>

### **Peachtree borer**

We are still picking up male, adult peach tree borers in our pheromone traps in Westminster this week. The adults have started laying eggs on the trunks of peach, plum and cherry trees and we had one report from Gaithersburg of landscape managers finding new entry damage on a cherry tree this week.

**Control:** Onyx can be used in the nursery and Astro or Onyx can be used in the landscape to protect susceptible trees. This will not kill larvae that have already entered the tree. You can try using the beneficial nematodes *Steinernema carpocapsae* to go after the larvae feeding in the cambium. There is ongoing work with this beneficial nematode in Georgia and North Carolina in commercial peach orchards and they are working with a Canadian company who is supplying a material that coats the nematodes to increase their resistance to drying out when applied as a spray to trunks.

### **EAB – PA and Ohio**

USDA APHIS employees returning from an EAB meeting in Ohio noticed suspicious ash trees with declining crowns and splitting bark along the western end of the Pennsylvania Turnpike in Butler County, Pennsylvania. Upon close inspection, they found two adult emerald ash borers. Dr. James Zablotny confirmed the identification as emerald ash borer, *Agrilus planipennis*. There are also reports of EAB in southern Ohio where West Virginia and Ohio meet.

### **Web-spinning Cherry Sawfly, *Neurotoma fasciata***

This sawfly was found feeding on black cherry in Beltsville last week by Ellery Vodraska (UMD). This sawfly is in the family Pamphiliidae (different than our more common sawflies) and is unique in that it does not have any pro-legs and it produces webbing.

**Monitor:** Watch for branch terminals (usually individual terminals) with webbing. These sawflies have black heads and orange bodies with greenish stripes.

**Control:** Prune out infested branches and destroy sawflies (ex. put in a bucket of soapy water).

**(Photo by Lacy L. Hyche, Auburn University, Bugwood.org)**



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## Bagworms

Most bagworms are about 0.5 - .75 inches in length this week.

**Monitor:** Visually look for these small bags NOW on evergreen and deciduous plants.

**Control:** If you have bagworms you should apply control measures now. If you wait until caterpillars get bigger damage will be much more severe. A product containing *Bacillus thuringiensis* (Bt) should still be very effective at this stage and soft on beneficials. Confirm (an insect growth regulator) should also be very effective.

## European Elm Scale, *Gossypia spuria*

During the Maryland Arborists' pest walk Dan Yates of Bartlett Tree Company had an elm sample with European elm scale. This scale has one generation per year and overwinters as second instar females and males in bark crevices. Egg laying started in May and continues through August with each female laying up to 400 eggs

**Monitoring:** Look for crawlers, settled crawlers and swollen females at this time of year.

**Control:** Distance, horticultural oil, soil drench of Safari or imidacloprid.



European elm scale female



Crawlers of European elm scale

## Obscure scale, *Melanaspis obscura*

Mike Raupp (UMD) reported that obscure scale crawlers were just beginning to hatch in College Park this week. Obscure scale is an armored (hard) scale that is common on oaks. They are gray, have a round shape, and are often found at high levels (overlapping each other) on the branches and sometimes trunks of trees.

**Monitor:** Begin flipping the scale covers over to see if eggs have started to hatch and crawlers are present (you will need a hand lens or magnifying glass). Flip several in different locations. Most obscure scale infestations have high numbers of dead scales that remain on the trees.

**Control:** Hold off on putting down controls until more of the eggs have hatched. We will let you know. Then apply Distance. For those with few and small trees you can try to "scrub" the scales off the branches using a soft scrub brush and soapy water.

**(Photo: United States National Collection of Scale Insects Photographs Archive, USDA ARS, Bugwood.org)**



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## Mites

Southern red mite and two-spotted spider mites are very active this week. The hot dry weather is perfect for mites to thrive.

**Monitoring:** Southern red mite is common on many broad-leaved evergreens such as hollies, and two-spotted spider mite is common on deciduous trees, shrubs, and herbaceous perennials and annuals. Place a piece of paper under leaves or branches and rap it sharply and look for mites (or tiny specks moving on the paper).

**Control:** Avid, Akari, Floramite, Hexygon, horticultural or neem oil (on non-drought stressed plants), kelthane. Note: Hexygon works best when mite populations are on the low side, not when they are at high densities.

## Gypsy Moth

I (Stanton) saw my first male gypsy moth adult on Sunday at Sykesville. I still have the pheromone in my body from applications of pheromone tape several years ago and the male was fluttering all over me on Sunday. We should see more male flight activity over the next 2 weeks and females will be mating and laying eggs masses as we move into July. Marty Adams reported that a whole hillside was defoliated in the Emmittsburg area on June 25. The gypsy moth has really hammered some areas in 2007.

(Photo of gypsy moth defoliation on South Mountain by Debby Smith-Fiola)



## Red-headed Pine Sawfly

Mark Adams, The Brickman Group, found red-headed pine sawfly larvae feeding on mugo pines on June 22 in Hunt Valley.

**Monitoring:** Look for larvae with reddish heads and yellowish-white body with six rows of irregular black spots. Larvae feed gregariously and strip the needles from the top terminals and branches. There are two generations per year.

**Control:** For isolated trees prune out branches where sawflies are aggregated. If numerous trees are infested treat with Conserve or a synthetic pyrethroid.



## Two-banded Japanese Weevils

Chuck Schuster reported two-banded Japanese weevils in Eldersburg. They are flightless so they tend to build up in certain landscapes. We have received many samples from Rockville in recent years.

**Monitoring:** Look for notching of leaf margins on rhododendrons, azaleas, laurel, euonymus, privet, cotoneaster and forsythia. These weevils are day feeders (compared to black vine weevil which feed nocturnally).

**Control:** Apply Acephate (Orthene) to the foliage to target adults. Adults are usually active July and August.

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### **Locust Leafhopper and Locust Plant Bug**

We're receiving reports of damage to honeylocusts from either locust leafhopper or locust plant bug. Often both are active at the same time. They cause damage to foliage by inserting their mouth parts into leaf tissue and withdrawing fluids and also injecting toxins to break down the tissue as they feed. Most of the injury is complete for the season with most of the feeding occurring over the last 6- 8 weeks.

**Control:** Next year treat with imidacloprid (merit) as a soil drench in April.

(Photo by Bob Robins)



### **Beneficials: Soldier Beetles**

I (Stanton) noticed that the sparkleberry was in full bloom last week at my farm and honeybees were all over the flowers. Besides the large number of honeybees there were hundreds of mating soldier beetles walking around on the leaves and feeding on the pollen and nectar of the flowers. These guys were mating and feeding at the same time. The soldier beetle is a generalist predator that feeds on a wide range of plant feeding insects. You can tell your customers a benefit of planting the native plant *Ilex verticillata* in landscapes is that it increases activity of beneficial beetles such as the soldier beetle in their landscape.



### **Beneficials: Antlions**

Brian Clark sent in the picture of antlion funnels that are outside his office in Prince George's County. The antlion is a predator in the family Myrmeleontidae. 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.



**Antlion funnels**  
Photo by Brian Clark



**Antlion**

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**Plant of the Week**

Mimosa trees are fast growing, small trees with feathery bipinnately compound leaves and beautiful flowers. The foliage is a rich green, giving a light and airy shade. The flowers are definitely what attract people to buy them as they are fragrant, pink and very silky. Mimosas have a long period of flowering, from May through August, transplant easily and can withstand drought and salt air. With all those positive points I can never recommend planting mimosa trees when another tree will fit the landscape. First, webworms can defoliate the tree, leaf spots and rust will also weaken mimosas, but worst of all, Fusarium wilt, a vascular wilt disease, can kill the mimosa tree with in a 10 year period. New cultivars have been introduced but they also succumb to Fusarium wilt disease. **(Photo by Ginny Rosenkranz)**



**Weed of the Week**

Daisy fleabane, *Erigeron annuus*, is a summer annual weed found in landscapes, nursery and pastures. This weed can reach heights of up to two feet with a very distinguishing white and yellow flower. The leaves are alternate, toothed, one two inches wide, two to six inches long and will have a small number of hairs. Upright stems will be solid (not hollow) and will be covered with small soft hairs. Flowers are similar to an aster, with up to twenty rays emerging from a yellow disc flower center. Control of daisy fleabane can be accomplished using Snapshot, Gallery or OH2 as a pre emergent herbicide and most post emergent herbicides will give good control of this weed. *(photo credit: Brice Dorwart)/Morris Arboretum*



**Prince George's County – New Extension Educator**

The University of Maryland Cooperative Extension has hired a new faculty member, Brian Clark, to work as an Extension educator in the Prince George's County office. His email is [bpclark@umd.edu](mailto:bpclark@umd.edu) and telephone number is 301-868-8780. If you are a professional green industry person feel free to contact Brian to help solve plant problems in Prince George's County.

**What's in bloom?**

<b>Plant</b>	<b>Plant Stage</b> (Bud with color, first bloom, full bloom, first leaf)	<b>Location</b>
<i>Albizia julibrissin</i> (Mimosa)	Full Bloom (June 27)	Catonsville, Ellicott City
<i>Koelreuteria paniculata</i> (golden rain tree)	Full bloom (June 22)	Columbia

**Degree Day Information (as of June 28):**

Baltimore, MD (BWI)	1424	Dulles Airport	1503
Hagerstown, MD	1350	Mechanicsville, MD	1453
National Arboretum	1583	Reagan National	1625
Salisbury	1209		

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