

Commercial Horticulture

July 5, 2013

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**Integrated Pest  
Management for  
Commercial Horticulture**  
**extension.umd.edu/ipm**

If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems found in the landscape or nursery to [sklick@umd.edu](mailto:sklick@umd.edu)

**Coordinator Weekly IPM report:**

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**Regular Contributors:**

Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists)

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 (Regional Specialist, Wye Research & Education Center)

Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

**Lawn Fertilizer Law Manual - Now Available**

**From Debby Freburger, MDA Nutrient Management Program:**

*The following link provides information in a press release of today's date that the Professional Lawn Care Manual is now available on our website:  
<http://news.maryland.gov/mda/press-release/2013/06/25/mdas-professional-lawn-care-manual-now-available-online/>*

*For those of you who would like to skip directly to the website of the manual follow this link: <http://mda.maryland.gov/SiteAssets/Pages/fertilizer/MDAProLawnCareManual6.24.13.pdf>*

*The requirement for certification is October, 2013; however, there are no examination dates set at this point in time. Please review the Urban Nutrient Management website for those updates as they occur. If you have further questions regarding the subject, please contact Dr. Jo Mercer at [jo.mercer@maryland.gov](mailto:jo.mercer@maryland.gov); and/or our Urban Nutrient Management Specialist, Judy McGowan at [judy.mcgowan@maryland.gov](mailto:judy.mcgowan@maryland.gov).*

**IPM Pest Walk on the Eastern Shore**

**July 11, 2013**

Stanton Gill, David Clement and Ginny Rosenkranz will lead a pest walk at the Salisbury University campus. The program starts at noon with lunch at Fratelli's Restaurant.

The cost is \$25.00. Contact Ginny Rosenkranz at 410-749-614, ext. 106, for registration and other details.

## Japanese Beetles

Connie Bowers, Garden Makeover Company, is seeing a lot of Japanese beetles feeding on both Knock Out roses and Harry Lauder's walking stick (*Corylus avellana* 'Contorta') in Silver Spring. She noted that they typically decimate Harry Lauder's walking stick. Cheryl Roettger, Eden Mill Nature Center, reported that Japanese beetles showed up this week on raspberry bushes planted in the vegetable gardens at the nature center in Harford County. Other reports are coming in of increased Japanese beetle activity this season on a variety of plants.



Japanese beetles on Harry Lauder's walking stick  
Photo: Connie Bowers, Garden Makeover Company

## Scarab Beetle Adults

Japanese beetles, Oriental beetles, masked chafers, green June beetles (family Scarabaeidae)

From: Paula Shrewsbury

I have not seen this many scarab beetle adults in at least 5 years. Last year I stated I had "never seen this many oriental beetles" but this year I am seeing many, many more adults active in landscape beds than last year - yikes! From my observations and reports from many of you populations of adult scarab beetles



Adult Japanese beetle  
Photo: P.M. Shrewsbury, UMD



Oriental beetle adults on coreopsis flower.  
The black and tan color pattern varies among oriental beetles.  
Photo: P.M. Shrewsbury, UMD

that include Japanese beetles, Oriental beetles, masked chafers and just this week we can add green June beetles are up from the last few years. Japanese beetles have a very wide host plant range of herbaceous and woody ornamentals and can cause significant damage. Linden trees and roses are highly preferred hosts. Oriental beetles are known to feed on the flowers and foliage of flowering plants but historically damage is minimal. This year however with high populations I am noting significant damage to flowers (my Shasta daisies look pretty ratty) and foliage from the oriental beetles. Masked chafers seem to cause very little damage to oriental. Similarly, green June beetles cause little damage unless you have trees with ripening fruit.

**Monitoring:** Monitor plants and flowers for defoliation (skeletonization) of foliage and discoloration / defoliation of flowers. In areas where you are seeing adult activity, be sure to closely monitor your turfgrass for white grubs and their feeding damage.

**Control:** If possible hand-remove beetles from plants. Many insecticides are labeled for adult scarab beetle control (ex. clothianidin, imidacloprid, neem, pyrethrum). Some products may require repeated applications. Be sure to read labels and avoid treating plants when pollinators are present.

## Scale Updates

**White prunicola scale** (WPS, armored scale): Monitored WPS on Tuesday July 2 in Laytonsville and found no females with eggs. Degree days in Laytonsville were 1303 DD. We will continue to monitor and report when the 2nd generation of crawlers emerge.

**Japanese maple scale** (JMS, armored scale): Monitored JMS populations in Laytonsville on Tuesday, July 2 and found 29% 3rd instar females with eggs, 33% settled crawlers (1st instar) and 38% 2nd instar. Degree days in Laytonsville were 1303 DD. If you have similar activity and have not already treated you still have time to treat.

**Juniper scale:** Monitoring for juniper scale on July 2 in Keedysville found 2 predaceous flies parasitizing scales. The covers of most of the scales (male and female) were all torn up. There were mainly 3rd instars present. There were 1343 DD.

**Indian wax scale:** Monitoring for Indian wax scale on July 1 in Columbia found a few crawlers, but most were early settled sessile stages. There were 1173 degree days.

## Bagworm

We continue to receive reports of bagworm activity. Carlos Iraheta, Pope Farm, found them on purple European beech this week. Debby Smith-Fiola, IPM Scout, found a 4th instar larva on July 2 in Keedysville. There were also still 2nd and 3rd instars present at the site.

**Control:** Bt will control the early instars. For later instars, options include Acelepryn, Confirm, and Conserve.



Bagworm on birch

UMD-IPMnet

## Biological Control of Mile-a-Minute Weed

### From Bob Trumbule, Maryland Department of Agriculture:

The Maryland Department of Agriculture (MDA) Weed Biocontrol Program holds the federal permit required for release of these biocontrol agents in the state of Maryland. MDA first released the weevils in Maryland in 2007 at Meadowbrook Park, which is about 5-6 miles nearly due east from the UMD research center in central Howard Co. MDA has been releasing weevils every year since 2007, and now have released over 13, 500 weevils at sites from Allegany County to Cecil County across northern and central MD, to Charles County in Southern MD and Wicomico County on the lower Eastern Shore. Weevils can travel, on their own, at least 6 miles in a year from initial release sites (documented by Judy Hough-Goldstein, U of Delaware). Our MAM weed biocontrol program at MDA has circumstantial evidence of weevil movement of 20+ miles in a year. Our program has been and is currently funded by the MD State Highway Administration and by USDA APHIS. We rear, release and track the weevils, and perform follow-up surveys for several seasons subsequent to release at each release site. We are currently concentrating on sites on SHA right-of-ways, especially storm water management areas where conventional weed control is problematic. From there subsequent generations of the weevils usually move out and colonize other areas infested by MAM weed, both nearby and further distant.

We are looking for MAM weed sites in the extremes of MD (far western, southern and lower eastern shore) that meet specific site requirements for release of additional weevils this year. Please feel free to contact me at 301-982-3224 if you have any questions or require further information about this program.

## Green June Beetle - Very Active this Week

We have received a lot of e-mails and calls this week of green June beetles, *Cotinus nitida*, buzzing over lawns. Their buzzing sound during flight resembles that of bumble bees which alarms a lot of people. Females fly over the turf's surface early in the morning, while males fly from mid- to late morning. Adult beetles can be found damaging various types of ripening fruit such as peaches, and they love to feed on very ripe figs. If a tree is oozing bacterial slime flux they will often gather on the trunk to feed on the sap.

The adult beetle is an attractive looking beetle. The adult's upper body is velvety green to dull brown with lengthwise stripes of green with yellow-orange margins on the hardened front wing. The underside of the body is shiny metallic green or gold. Adults also have a distinct, small, flat horn on the head. This beetle is one of our native beetles that for years has been considered a benign pest, but in some cases is cropping up as a turfgrass pest. Grubs seldom consume enough turf roots to cause significant damage. However, their disruptive burrowing and mound-building activities can disfigure turf. The mounds are frequently 2 to 3 inches in diameter; plus,



Green June beetle larva and adult

grubs leave distinct open, vertical soil burrows averaging 6 to 12 inches in depth. The diameter of the burrow is about the size of your thumb. Drought-stressed grass that is maintained at a very short height succumbs easily to this type of damage. This year we have had frequent rain storms so I doubt this will be a problem in 2013. After a rain, grubs may end up on sidewalks, in the garage, or on patios.

## Control Options

**Cultural:** Maintaining a healthy lawn will assist in masking grub damage and encourage recovery of turf. Overseeding thinned-out damaged areas in the fall can be one way to deal with any damage.

**Biological:** If you want to try something – try entomopathogenic nematodes to control the grubs. There are two major species available for suppressing grubs: *Steinernema* spp. and *Heterorhabditis* spp.

Insect-parasitic nematodes do not have a long shelf life. Likewise, be sure to follow all label directions regarding irrigating in these organisms immediately following an application. Green June beetle grubs are parasitized by a type of digger wasp, *Scolia dubia* (Say).

These wasps are usually most abundant during August. Adult female wasps dig through the soil in search of grubs. Once located, the wasp paralyzes the grub and lays an egg on the grub. Every year we get reports of this wasp buzzing over people's lawn. They are scary looking, but I have walked among the low buzzing wasp and have never been stung. They concentrate on finding the green June beetle larvae in the turfgrass to lay their eggs into the grub.



*Scolia dubia* wasp

## Kudzu Bug Found in Maryland

Add one more bug that has invaded Maryland – the Asian kudzu bug (*Megacopta cribraria*). It is also called the bean palaspid bug. The bean palaspid is native to India and China and is also found in Indonesia, Japan, Korea, Malaysia, Pakistan, Sri Lanka, Taiwan, Thailand, and Vietnam. The insect is pea-sized, greenish brown, and round with a wide posterior. It appears to waddle when it walks on a surface and is an excellent flier. The good part is that this bug feeds on kudzu plants. The bad news is that it also feeds heavily on soybean plants which is grown in a lot of fields in Maryland. Also, it overwinters in houses, much like the brown marmorated stink bug (BMSB). In the fall, the adults will congregate on the sides of houses before overwintering. This true bug is not flat-shaped like the BMSB. If you see this bug this summer or fall please report it to the website that was set up by the University of Maryland: [www.MDkudzubug.org](http://www.MDkudzubug.org).

Reports from China indicate that the bean palaspid can significantly impact soybean production. In China, the pest has caused springtime crop losses of up to 50 percent and summertime losses of up to 30 percent. Severe infestations on some host plants result in seed yield losses, improperly developed pods, and under-sized seeds. The bean palaspid is also listed as a harmful pest of Chinese fruit trees. If it moves to other host plants in the United States, the pest has the potential to cause significant agricultural damage.

### From University of Maryland Kudzu Bug Survey ([MDkudzubug.org](http://MDkudzubug.org)):

*This spring and summer we have been combing over Maryland's back roads and scenic byways in search of stands of kudzu vines (*Pueraria montana*), which are the preferred host of the invasive kudzu bug (*Megacopta cribraria*). We have been focusing our search in southern counties and counties that border Virginia. After scouting*

*for kudzu bug in Howard, Montgomery, Prince George's, St. Mary's, and Calvert Counties, adult kudzu bugs have been found on roadside kudzu patches in **Anne Arundel, Calvert, and Prince George's Counties**. These are the first reported sightings of this introduced insect species for the state of Maryland, and marks the new northernmost sighting of the insect along the path of its invasion from the south. In 2012, the closest reports of kudzu bug were from Goochland County, Virginia, but the insect has since been spotted in four new Virginia counties, including Culpeper and Frederick.*

### Emerald Ash Borer

Kim Rice, Maryland Department of Agriculture, reported that EAB has also been found in Calvert County which is one more area to add to the list.



Kudzu bugs

Photo: Daniel R. Suiter, University of Georgia, [Bugwood.org](http://Bugwood.org)



Kudzu bug eggs under the microscope

Photo: Paul Smith, University of Georgia, [Bugwood.org](http://Bugwood.org)

## Rain and Mid-Season Disease

We have many landscape managers taking care of their customers' home fruit tree plantings. With the regular periods of rain this summer, hopefully, you have been following a regular fungicide spray program. In a droughty summer you can usually let up on fungicide sprays in July and August. Since we have been having rainy weather recently, now is the time to put on a protective fungicide for mid- to late-season fungus problems like sooty blotch and flyspeck. Sooty blotch and flyspeck are surface blemish diseases that commonly appear together on apple or pear in August and September. It will not damage the flesh of the fruit, but it makes the apple or pear fruit look very un-appetizing. Sooty blotch appears as sooty smudges or olive-green spots on mature fruit. Flyspeck is characterized by clusters of 10 to 50 sharply defined black shiny specks on the fruit surface.

Some cultural practices may help prevent and/or reduce the severity of sooty blotch and flyspeck. These include dormant and summer pruning to open up the tree canopy and thinning to separate fruit clusters which will facilitate the drying of fruit after rain or dew. Both diseases are difficult to control in apple trees and pear trees with restricted air movement. Finally, when the rain stops for a day or two this July, you can apply a fungicide such as Captan mixed with a spreader sticker. If it is still rainy in mid-July you might need to come back with a second application. If the customer is not too particular about the fruit appearance you can assure them the flesh of the fruit will still be usable for jams, jellies, and pies. The two fungi are just on the outer flesh of the fruit. It is very unattractive, but the non-squeamish should be able to deal with it.



## Beneficial of the Week, Paula Shrewsbury

**Soldier beetles or leatherwings are a common site on flowering plants (Coleoptera: Cantharidae)**

Soldier beetle adults are elongate in shape and have orange and black coloration that can vary in its pattern. Soldier beetles are related to lightningbugs (family Lampyridae). There are 16 genera and 455 species of soldier beetles known in North America. Several species occur in Maryland. Soldier beetle species can be identified by the pattern of the black color on its pronotum (segment just behind the head). Identification can be somewhat tricky because even within a species the color pattern on the wings can vary. Soldier beetles in the genera *Chauliognathus* are referred to as leatherwings.

Soldier beetles are beneficial insects as they play a role as pollinators and predators. I have seen adults on many different types of woody and herbaceous plants feeding on the nectar and pollen of flowers. A common species we see at this time of year is the margined leatherwing beetle, *Chauliognathus marginatus*. More commonly we see a species of soldier beetle that is active in late summer and early fall that is frequently found on the flowers of golden rod (*Solidago* spp.) known as the Pennsylvania or goldenrod leatherwing, *Chauliognathus pennsylvanicus*. Adult soldier beetles are reported to feed on nectar, pollen, honeydew, and small insects. Females lay their eggs in moist soil or leaf litter. Larvae are dark, velvety-looking, elongate and flattened. Larvae are active in the soil and leaf litter and feed on insect eggs, small caterpillars, fly larvae (maggots), other soft-bodied insects, and slugs and snails.



## Weed of the Week, Chuck Schuster

Common groundsel, *Senecio vulgaris* L., is a member of the sunflower family. It has numerous, yellow disk flowers. It is a winter annual, although it may germinate in all seasons.

This weed will grow from 4 to 18 inches in height and has deeply lobed leaves with toothed margins. Close examination of the leaves reveal they can be smooth or hairy. Leaves are arranged along the stem in a spiral pattern and are deeply scalloped or lobed in the margin. Stems are smooth.

Yellow flowers appear at the end of stems in clusters and can be one half inch in diameter. The seed head (fruit)

is very similar in appearance to dandelion, with a white puff ball that is easily distributed by the wind. This weed thrives in moist landscapes and lawns and is a prolific seed producer with seeds that do not require cross-pollination



**Common groundsel**

**Photos: Chuck Schuster, UME**

Control of common groundsel is achieved using many pre-emergent products that will include snapshot and Surflan in the landscape. Post emergent control can be obtained using glyphosate products. Control in turf settings can be achieved using many broadleaf post-emergent products.

### Degree Days (As of July 4)

Baltimore, MD (BWI)	1474	College Park	1747
Dulles Airport	1511	Frostburg, MD	924
Martinsburg, WV	1399	National Arboretum	1747
Reagan National	1747	Salisbury	1686

To check degree day (DD) accumulations in your local area go to:

<http://www.weather.com/outdoors/agriculture/growing-degree-days/USMD0100>

Note: degree days reported in this newsletter for various pests use the Weather.com web site, a base temperature of 50 °F, a start date of January 1st, and the date of monitoring as the end date.

### Plant Phenology: What is in bloom

PLANT	PLANT STAGE (Bud with color, First bloom, Full bloom, First leaf)	LOCATION
<i>Monarda fistulosa</i>	First bloom	Ellicott City (July 2)

### A New Address for the IPMnet Website

University of Maryland Extension made changes to its website this spring. Now, the IPMnet site is at a new address which is <http://extension.umd.edu/ipm>. The IPM alerts and conference information will be posted at this new location. The old address of [ipmnet.umd.edu](http://ipmnet.umd.edu) will be up for a little longer, but new information will not be added to it.

## Upcoming Programs

### Nutrient Management Plan Writing – Nursery and Greenhouse Production

July 10, 2013, 9 a.m. to 3:30 p.m.

Location: CMREC, 11975 Homewood Road, Ellicott City,

Contact: Andrew Ristvey, [aristvey@umd.edu](mailto:aristvey@umd.edu), 410-827-8056 x113

### Summer Cut Flower Tour

August 6, 2013

Eastern Shore: Salisbury and Federalsburg  
For the brochure: [extension.umd.edu/ipm](http://extension.umd.edu/ipm)

### IPM Pest Walk

July 11, 2013

Stanton Gill, David Clement and Ginny Rosenkranz will lead a pest walk at the Salisbury University campus. The program starts at noon with lunch at Fratelli's Restaurant.

Cost: \$25.00

Contact Ginny Rosenkranz, 410-749-6141, ext 106, for registration details

### Flower Trial Field Day - Penn State Extension

July 25, 2013

Location: Manheim, PA

<http://agsci.psu.edu/flower-trial>

### 2013 FALCAN Truck and Trailer Safety Seminar

August 14, 2013

Location: Frederick Fair Grounds

Registration information:

<http://www.falcanmd.com/Forms.html>

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