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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)
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Hawthorn Lace Bug
Steve Sullivan found a heavy infestation of hawthorn lace bugs causing damage on cotoneaster in Northern Virginia on June 25. Early in the season, examine newer foliage for stippling damage on upper leaf surface and dark colored frass spots and active lace bugs on underside of leaves.

Control: When populations are as high as shown in the photos, then it is probably not worth treating at this time. Next year, consider a soil drench of imidacloprid (which will last about two years) or dinotefuran (which will last one year). For lower populations at this time in the season, control options include acetamiprid (TriStar), acephate (Orthene) or a foliar treatment of dinotefuran (Safari, Transtect).

Photos: Steve Sullivan, The Brickman Group
Japanese Beetle and Brown Marmorated Stink Bug Update (Stanton Gill)

Thanks to all who sent in reports of Japanese beetle in response to my request last week. Your input really helps us see what is going on across the state. Based on the emails, adult Japanese beetles have returned in fairly large numbers in parts of Maryland.

Back in 2003 and 2004 we received record rainfall during the summer months. In the seasons following these stormy summers we were inundated with almost ridiculous numbers of Japanese beetle adults. The counts were so high they were feeding on just about anything green. Feeding was not confined to roses and grapes in the 2004 and 2005 seasons. In 2005 I visited a nursery that was plagued with Japanese beetles and the manager was spraying aggressively. He had started with sprays of Acephate (Orthene), following this with carbaryl (Sevin) 7 days later, then permethrin seven days after this and finally treated with imidacloprid foliar spray. When the manager asked me to come by and look at zelkova in their nursery, the leaves were completely eaten with just midrib veins and a few major leaf veins remaining on what started as densely foliated trees. It was not that the chemicals were not working, it was the shear volume of adults that would feed on the foliage before dying that were still causing significant damage. Japanese beetles may be back but I do not anticipate that we will return to these levels in 2012, at least so far.

On Sunday evening (June 24) I was walking among an asparagus planting and the plants were well branched with lots of foliage. The interesting thing was that adult Japanese beetles were clinging to the foliage at just about dusk. Back in 2004 and 2005 we had several people report that adult Japanese beetles like to rest on asparagus foliage in the evening. They feed a small amount but really just appear to rest on the plant for the evening and migrate to other plants as the sun rises. I am not sure what the attraction to asparagus foliage is, but this may be a good trap plant.

The BMSB populations are another story. All of the respondents reported greatly reduced numbers of brown marmorated stink bugs this season. We will check again later in the season to see if the populations start to recoup.

Here are a couple of the responses I received via email:

John Piersels - We have observed no BMSBs or BMSB eggs this past week which is a definite change from this time last year here outside of Centreville. The beetle situation is a different story. We had very few last year but are seeing a significant population of both Japanese and Oriental beetles starting a week to ten days ago. In our landscape their preference seems to be knockout roses and river birch. However, we are seeing some beetle damage on almost every plant in the landscape.

Bernie Mihm- Poolesville: Massive numbers of Japanese beetles on my raspberries this year. I have had this one row of raspberries for several years and I actually pull these off myself. There are at least 10 times more beetles this year than any other year!

Linda Barker – Carroll County They’re back. After having very few for a couple of years, the J-beetles are back in multitudinous numbers. I live between Reisterstown and Hampstead, and the beetles are on Evening Primrose, Hydrangea, and Lythrum(yep, I have that) so far. The numbers are high. Today, I picked about 50 in one area of the garden, mostly from the Evening Primrose. Sigh. Why couldn’t they have just died out?
Control Options for Japanese Beetles
The adults will be active for several weeks this summer and you may need to protect some of your customers’ more valuable plants. In 2005 we conducted a field trial to evaluate soil applications of Imidacloprid (applied to soil in late April) with the City of Gaithersburg. They had large plantings of zelkova trees that were being severely defoliated at Park and Ride sites. We compared this to 3 foliar applications at 7 day intervals and untreated controls. A national arborist company worked with us in making the applications at the Gaithersburg site. In 2005 the adult feeding pressure was very heavy and the untreated plants had up to 70 % defoliation. The Permethrin treated trees, after 3 applications had around 10 % defoliation. The imidacloprid treated trees had under 5% foliar damage. The foliar soil treatment was what the city decided to use for future treatments. After this trial we started having drought conditions in the summer during Japanese beetle female egg laying periods. The droughts resulted in a crash of the survival of JB larvae and we really have not seen Japanese beetle populations increase for the last 7 years.

In 2005, working with a company in Maryland that has a neem product labeled for ornamentals we conducted field trials at CMREC to evaluate Neem compared to Acephate on zinnias for control of Japanese beetles. We were only able to prevent feeding injury for 3 – 4 days with the neem treatments. Originally we were making treatments at 7 day intervals but we had to increase the frequency to every 3 days to really keep the injury on the zinnias to under 5% injury.

If this summer has a fair amount of rain we may see higher survival of JB larvae (grubs) with growing populations in 2013. If this happens then applications of imidacloprid in late April might be worth it on high value plant material. I suspect most of the neonicotinoids would give similar results. Dinotefuran, applied as soil or trunk injection, is much faster on plant uptake than imidacloprid. TriStar (neonicotinoid) is labeled for foliar applications on ornamental plants. Other options include Acephate (Orthene) and carbaryl (Sevin) which is effective but not preferred since it impacts so many beneficials. Neem can be used but expect just a couple days worth of control from most of the labeled products.

Cicada Killers
Bob Nixon, Master Gardener, found cicada killers active this week in Howard County. It is the first report that we have received this season. These wasps usually do not harm people, but can cause a painful sting if bothered. Adults feed on flower nectar. An adult female will find a cicada, sting it and bring it back to her nest. She lays an egg on the cicada. The egg hatches and the developing wasp larva will feed on the cicada. If your customers are asking about these wasps, tell them that it is best to leave them alone.

Emerald Ash Borer Found at New Site
Dick Bean, Maryland Department of Agriculture, reports that an adult beetle of emerald ash borer (EAB) was found in Mill Creek Town Park, Shady Grove Road (Derwood area of Montgomery County) last week. No infested trees have been found yet, but finding the adult on the purple attractant trap indicates that there are likely to be infested trees in the area. MDA is conducting delimiting surveys to check for infested trees. Montgomery County and all counties west of the Chesapeake Bay are in the EAB quarantine.

The new Emerald ash borer quarantine goes into effect on July 1, 2012. For details on this change, go to http://www.aphis.usda.gov/newsroom/2012/05/eab_quarantine.shtml
**White Prunicola Scale**
Marie Rojas, IPM Scout, is finding second generation crawlers active of white prunicola scale in Montgomery County this week. Marie noted that many of the cherries she scouted have high populations. White prunicola scale is usually found on *Prunus* species and the first instar cover has a yellow center cap. This scale is can also be found on magnolia, ligustrum, rhododendron, forsythia, boxwood, and lilac. A similar scale is white peach scale.

**Control:** When crawlers are out, pyriproxyfen (Distance) or buprofezin (Talus) mixed with 0.5 - 1% horticultural oil gives excellent control.

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**Liriope Crown Rot**
Steve Sullivan, The Brickman Group, is finding liriope infected by crown rot this year. He noted that it is active all over in landscapes, especially on irrigated beds. Initial symptoms include yellowing, then browning of individual leaves, which progresses to collapse of the entire plant. Affected leaves pull out easily from the clump, and are often blackened at the base. Several fungi have been reported to cause crown and root rot in this plant – *Phytophthora*, *Pythium*, *Rhizoctonia* and *Fusarium*.

Crown rot diseases are usually promoted by excessive moisture, deep planting, and other cultural factors that are stressful for plant growth. It is important to examine plants for symptoms of crown rot before installing them in the landscape – do not use plants that have a number of yellow or brown leaves, and check the roots to make sure they look healthy and white. It is very difficult if not impossible to manage fungal root and crown diseases with fungicide applications in the landscape – it is much more effective to avoid introducing potentially diseased plants, and to remove plants promptly, as soon as you notice crown rot problems. Managing irrigation to reduce the amount of time water may sit in the crown of the plant (irrigate early in the day, use drip irrigation instead of sprinkler irrigation, for example) will help reduce disease problems as well.

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**Green June Beetles**
Green June beetle adult activity started here at the research center in Ellicott City this week. If you have trees with wounds, you might find green June beetles feeding on the sap. At this time, adults are hovering over grassy areas looking for mates.

**Control:** Green June beetles are usually not a pest on trees, but sometimes they can be found feeding on ornamental plants such as the Rose of Sharon or on fruit. These beetles are more of a problem in turf.

More information is available at [http://iaa.umd.edu/umturf/Insects/Green_June_Beetle.html](http://iaa.umd.edu/umturf/Insects/Green_June_Beetle.html)
**Downy Mildew on Impatiens in the Landscape**

We continue to receive reports of impatiens downy mildew in landscape plantings. The cool temperatures we had for a few days this week have favored disease development, but our current heat wave should slow the spread of this disease significantly. It will certainly make sporulation less obvious on the undersides of the leaves, making disease detection more difficult. If you see severe leaf drop on landscape garden impatiens (*I. walleriana*), downy mildew is a likely culprit. This disease spreads very quickly when conditions are favorable – if symptoms are found on a portion of a planting, you can assume that most if not all of the plants in the bed are infected. This is not a disease that is easily controlled with fungicides in the landscape – once plants are infected, sprays are useless. Sanitation is the best option for control since this disease has the potential to overwinter in infected plant debris in the soil. Remove plants by bagging them and discarding in the trash. Do not compost! Replant affected areas with other shade-loving plant species. For more information, check out the following links:

**Michigan State University:**
http://msue.anr.msu.edu/news/how_to_manage_impatiens_downy_mildew_in_the_landscape/

**American Floral Endowment:**

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**Spider Mite Activity**

Steve Sullivan sent in a photo of heavy mite damage on burning bush euonymus in a landscape in Columbia. Many deciduous herbaceous perennials, annuals, and woody ornamentals are susceptible to twospotted spider mites.

**Monitoring:** Place a piece of paper below foliage and tap it sharply over the paper to dislodge spider mites. The mites will be greenish yellow in the nymph stage and in the adult stage they will be the same color but with two dark spots on each side of their body. In the landscape, examine susceptible herbaceous perennials such as monkshood, hollyhock, clematis, gaillardia, heuchera, hibiscus and verbena. Some annuals to monitor for mites include marigolds, salvia, and New Guinea impatiens.

**Damage:** The spider mites remove plant juices and cause a stippling damage to the foliage. Heavily infested leaves will turn yellow or bronze and drop. If infested annuals plants may die.

**Control:** Early in the season some of the best control involves using mite growth regulators that impact nymphs of spider mites. These materials prevent mites from shedding their skin and going to the next life stage. Here are some of the mite growth regulators available: hexythiazox (Hexygon), clofentezine (Ovation), etoxazole (Tetrasan). Forbid is another miticide available which is translaminar and desiccates treated mites and eggs. It acts a little like a growth regulator and it also inhibits oviposition in adult females. Some of the other materials for mite control are abamectin (Avid) fenpyroximate (Akari), bifenazate (Floramite), spinosad (Conserve) pyridaben (Sanmite).

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**Garden impatiens infected with downy mildew**

**Twospotted spider mite damage on euonymus**

**Photo: Steve Sullivan, The Brickman Group**

**Downy mildew sporulation on underside of leaf**

**Photo: Karen Rane, UME**
Degree Days (As of June 28)*
Baltimore, MD (BWI) 1614
Dulles Airport 1554
Frostburg, MD 973
Martinsburg, WV 1479
National Arboretum 1904
Reagan National 1904
Salisbury 1680

*As of May 11, degree day calculations are from weather.com growing degree day calculations instead of NOAA min and max temperatures. To check degree day (DD) accumulations in your local area go to: http://www.weather.com/outdoors/agriculture/growing-degree-days/USMD0100

Plants in Bloom

<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>Monarda fistulosa</td>
<td>Full bloom (June 27)</td>
<td>Ellicott City</td>
</tr>
<tr>
<td>Sedum ‘Autumn Joy’</td>
<td>Buds showing color and a few first bloom (June 29)</td>
<td>Ellicott City</td>
</tr>
<tr>
<td>Saururus cernuus</td>
<td>First bloom (June 28)</td>
<td>Ellicott City</td>
</tr>
<tr>
<td>Vitus agnus-castus</td>
<td>First bloom (June 26)</td>
<td>Ellicott City</td>
</tr>
</tbody>
</table>
Upcoming Programs

2012 Perennial Plant Symposium
July 4 - 10, 2012
Location: Boston, Massachusetts
perennialplant.org

OFA Short Course
July 14 - 17, 2012
Location: Columbus, Ohio
ofa.org

PANTS 2012 (Pennsylvania Nursery Trade Show)
July 31 to August 2, 2012
Location: Greater Philadelphia Expo Center, Oaks, PA
www.pantshow.com/2012

OFA Perennial Production Conference
September 10 - 12, 2012
Location: Grand Rapids, Michigan
ofa.org

IPPS Eastern Region Annual Meeting
October 10 - 13, 2012
Location: Brandywine Valley, Pennsylvania
http://www.ippseastern.com

2012 Pest Management Conference
December 13, 2012
Location: Carroll Community College, Westminster MD

Mark Your Calendar

Chesapeake Green 2013
A Horticulture Symposium
February 14 and 15, 2013
at the
Maritime Institute,
Linthicum Heights, MD
(near BWI)

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