Weather Update
By: Stanton Gill
This is turning out to be one very wet season so far. Plants are growing well, but we are seeing a lot of leaf spot diseases showing up on plant material. The good news is that annual flowers and perennials generally look good. The difficult problem this year is keeping weeds down in landscape beds and in nursery rows since the weeds are thriving with the abundant moisture.

Maryland Department of Agriculture Pesticide Container Recycling
MDA has a brochure on the dates and details of the pesticide container recycling program which is available at: http://mda.maryland.gov/plants-pests/Documents/recycle.pdf
Plants With White Prunicola Scale Needed for Research

Paula Shrewsbury and Nancy Harding are in need of trees (Prunus ssp. or Syringa ssp.) infested with white prunicola scale to conduct a research trial. They need a minimum of 5 trees. If you possibly have a site, contact Nancy Harding at nharding@umd.edu with your contact information.

Japanese Beetles
By: Stanton Gill

Since we announced Japanese beetle adult activity last week, we have had several e-mails announcing their activity in Central Maryland, Southern Maryland, and the Eastern Shore. Richard Chaffin, The Brickman Group, found heavy infestation on maples, lindens and zelkova in Harford County. He noted that the client had been monitoring and the beetles just popped up over the weekend. In Central Maryland, Steve Clancy, Town Creek Landscaping, found them feasting on Tardiva hydrangeas. Kevin Nickle, ProLawn Plus, Inc., also found many in Central Maryland. The only place I have not had reports of their activity yet is Western Maryland. If you are in Western Maryland and find activity this week, please let me know at 410-868-9400 or sgill@umd.edu.

Acelepyrn for Japanese Beetle Control: Last week, I wrote about using Acelepyrn for Japanese beetle control. Steve Black checked the label and could not find where it was labeled for use in nurseries. He was right - it does not include nurseries on the label. I contacted Nancy Rechigl at Syngenta for a clarification.

Here is Nancy’s response:
Acelepyrn does not have nursery use on the label—just registered for landscape use. Mainspring – which is set to come out of the EPA any day, was supposed to have nursery use on that label. Unfortunately, that has now changed and the label is going to first come out with greenhouse uses, hopefully with the outdoor use following shortly after.

Mainspring is similar chemistry to the Acelepyrn that is presently on the market. They are both Diamides but differ in their spectrum of activity. Mainspring has a slightly broader spectrum and can be used as a spray or drench (when it receives its final EPA approval) and it will control aphids, thrips, whitefly (Bemesia spp.), leafminer and caterpillars. Mainspring works differently in that it causes paralysis and the insects stop feeding soon after initial ingestion.

Talus and Oil
By: Stanton Gill

A nursery grower called to report that when he mixed Talus and summer rate oil together it forms clumps in his spray tank. He mixed the Talus in a 2.5 gallon bucket first, and then added it to the spray tank with vigorous agitation. He then mixed 0.5% horticultural oil into the 2.5 gallon bucket and added it to the Talus in the tank. He found it clumped up and fouled up his screens in the sprayer. I spoke with SePRO Company representatives and they said that Talus should not be mixed with horticultural oil. The clumping was something that SePRO found commonly occurred when oil is mixed with Talus. We have mixed a 0.5% horticultural oil with Distance (in an E.C. formulation) with no problems, but it looks like it is not a good idea to mix oil with Talus.
Urban Pests
In an IPM Alert three weeks ago we reported that a bear was found in Bethesda. Last week another male bear (150 lbs) was found in Bethesda on the NIH grounds. It climbed a tree and to get it down authorities used bottle rockets to scare it down to move it to a safe home in Washington County. Looks like black bear are becoming part of the urban scene with greater frequency.

Ornamental Cherry Trees
By: Stanton Gill
Something interesting I observed over the weekend was cherry leaf spot disease on a Yoshino cherry tree in Westminster. Over half of the foliage had dropped off the trees. It looked like fall underneath the canopy of the tree. Cherry leaf spot disease is a fungus that primarily attacks the leaves. A few weeks after petal drop, this disease first appears as small, purplish spots on the upper surface of the leaves. These spots eventually turn brown. Most spots are circular; however, when abundant, they often coalesce and form large, irregular dead patches. We had wet weather that was ideal for infection this spring. The dead areas on the leaves eventually drop out of the leaf and leave behind a “shot-holed” appearance. Areas around the spots often remain green, giving the leaf a mottled appearance. Infected leaves turn yellow and fall off. Entire trees can be defoliated by midsummer. Five years ago we saw many ornamental cherries defoliated by July and August. This premature defoliation weakens trees and makes them more susceptible to cold injury the following winter. There is not much we can do at this time of year, since any fungicide would have had to be applied as a preventative early in the spring. If you are seeing a lot of leaf spotting and early defoliation of cherry trees in your area let us know.

Fall Webworms
We continue to receive reports of fall webworm activity. Many are reporting that the infestation levels are higher than usual. Fall webworm is a native caterpillar species that has a wide host range. There will be a second generation later in the season. The caterpillars produce silk and create tented areas on the terminals of branches where they feed.

Control: Use Bt, horticultural oil or insecticidal soap for early instars or prune out webbed branches. There are many predators and parasites that help keep this pest below damaging levels.
Flea and Tick Control
We had a question about indoxacarb from DuPont Company. Indoxacarb is a member of the oxadiazine class of insecticides that act by inhibiting sodium ion entry into nerve cells, resulting in the paralysis and death of target insect pests. Indoxacarb was developed by E. I. du Pont de Nemours and Company (DuPont). It was initially registered by the U.S. Environmental Protection Agency (U.S. EPA) in October 2000 and was designated a reduced-risk pesticide (U.S. EPA, 2000). It is not labeled on many ornamentals, but it is sold as Activyl from Merck Animal Health. It is marketed to kill fleas on dogs and cats.

Barklice on Crape Myrtle
Melissa Rushing, B. Rushing Lawn and Landscaping, Inc, found barklice on crape myrtle on Sunday, June 22. Barklice do not feed on living plants. They feed on lichens, decaying organic matter, dead insects, molds, fungi and pollen. No control is necessary.

Greenhouse Growers Field Day
The Maryland Greenhouse Growers’ Association and the Maryland Nursery and Landscape Association held an educational field day at Tidal Creek Growers in Davidsonville on June 19. Forty five professionals attended. The association will be planning additional field days for late 2014 and 2015. These field days provide a good opportunity to talk with other professionals and pick up new ideas to improve your business.
**Boxwood Blight**

Brian Lilly, Natural Elements, LLC, found suspicious boxwood plants in a residential landscape in The Plains, VA, and submitted boxwood samples to the diagnostic lab in Virginia. He received confirmation that the plants are infected with boxwood blight. He noted that they were fairly large plants.

*When scouting boxwood plants, look for leaf spotting on leaves as shown in photo, heavy leaf drop, and black cankers (streaks) on stems.*  
*Photo: David Clement, HGIC*

**Nursery Field Day**

On June 26, the Maryland Nursery and Landscape Association held its annual nursery field day at Roseland Nurseries in Sudlersville on the Eastern Shore. Over 115 people attended and heard talks by representatives from the Maryland Department of Agriculture and University of Maryland Extension.

In the afternoon, participants went on three different tours to get various views of the nursery and learn about some of their production methods.

*Hollies in the field at Roseland Nurseries*

**Mayflies**

Richard Chaffin, The Brickman Group, found an adult (imago) of a mayfly in Harford County this week. The nymphs of mayflies are aquatic and are found in fresh flowing water. When they emerge, they molt into an immature winged form (subimago) before molting into an adult. Mayflies are the only living insects that molt after they have wings. Adults do not feed.

*The nymphs of mayflies are aquatic, and most are herbivores. Adults do not feed.*  
*Photo: Richard Chaffin, The Brickman Group*
Weed of the Week
By: Chuck Schuster, UME

Carolina geranium, *Geranium carolinianum*, is typically a biennial, but can also be found growing as a winter annual. It is often called crane’s bill because of the shape of the fruit pods it develops. This plant can be found throughout much of the United States in both turf and landscape settings. When growing as a biennial, it will establish itself with a basal rosette during the first year, and during the second year a stem will develop and elongate for flower and seed production. It forms a dense mat in turf and landscape settings and prefers fertile moist soils. When growing as a winter annual, it will germinate in the fall, forming the basal rosette, overwinter and produce the elongated stem in the following spring. The root system is fibrous with a shallow taproot, leaves are alternate at the base, moving to opposite as the plant develops. Leaves are deeply segmented with 5-9 different segments that can be lobed or toothed. Leaves are up to 2.5 inches in overall diameter, with a round shape. The stems will reach a total height of up to thirty inches, branching often, have dense hairs, and are a pink to light red in color. The fruit pods are one quarter to one half inch in length with an elongated “beak” from where its common name is taken. Flowers appear in groups of two or more clusters found at the tips of stems or branches. Flowers are light pink to light purple and have petals that are up to one quarter inch in length. Bloom period is from April to July.

Control of Carolina geranium in turf can be obtained using most three way broadleaf herbicide, which can include 2,4D, dicamba, and mecoprop, citrus oil (Nature’s Avenger), a mixture of sulfentrazone and quinclorac (Solitare). In landscape settings, glyphosate products work well as post emergent control.

Plant of the Week
By: Ginny Rosenkranz, UME

*Ilex koehneana* are holly hybrids from *I. aquifolium* and *I. laifolia* with a number of cultivars which include ‘Jade’, ‘Ajax’, ‘Ruby’, ‘San Jose’ and Holly of the Year for 2005, ‘Lassie’. The cultivars vary in size from 4-6 foot shrubs to 15-20 foot pyramidal trees. Their best quality, besides the very lustrous dark green foliage, is their beautiful pyramidal shape. The leaves are 2-4 inches long with a

Foliage of crane’s bill geranium
Photo: Virginia Tech Weed ID Guide
downward curve and almost look smooth, but have many small spines that are semi sharp. They are adaptable to many locations, doing well in either sun or shade with moist to dry soils. They are considered very heat tolerant. They are cold hardy from USDA zones 7 - 9 with a medium to fast growth habit. Like all hollies, *I. koehneana* are dioecious with male and females as separate plants, blooming with fragrant creamy white flowers in the spring and then consistently covered with orange red to red berries or drupes that are 3/8 inch in diameter. They can be used in the landscape as specimens or as hedges or screens. Insect pests include scale, including Japanese Maple scale, and root rot.

*Ilex koehneana* photos by Ginny Rosenkranz, UME

<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>Aesculus parviflora</td>
<td>First bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Albizia julibrissin</td>
<td>First bloom</td>
<td>June 23 (Columbia)</td>
</tr>
<tr>
<td>Asclepias tuberosa</td>
<td>Full bloom</td>
<td>June 23 (Ellicott City)</td>
</tr>
<tr>
<td>Cyclamen coum</td>
<td>First bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Echinacea tenneseensis</td>
<td>Full bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Elliottia racemosa</td>
<td>Bud with color</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Gaultheria procumbens</td>
<td>Full bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Marshallia grandiflora</td>
<td>First bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Mitchellia repens</td>
<td>Full bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Monarda ‘Gardenview Scarlet’</td>
<td>Bud with color</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Oxydendrum arboreum</td>
<td>Bud with color</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Ptelea trifoliata</td>
<td>Full bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Rhododendron maximum</td>
<td>Full bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Rhododendron viscosum</td>
<td>Full bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Saururus cernuus (lizard’s tail)</td>
<td>First bloom</td>
<td>June 26 (Ellicott City)</td>
</tr>
<tr>
<td>Syneliesis aconitifolia</td>
<td>First bloom</td>
<td>June 24 (Silver Run)</td>
</tr>
<tr>
<td>Zenobia pulverulenta</td>
<td>First bloom</td>
<td>June 24 (Silver Run)</td>
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Degree Days (As of June 26)

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<tr>
<th></th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
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<tr>
<td>Baltimore, MD (BWI)</td>
<td>1231</td>
<td>1248</td>
<td>1559</td>
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<tr>
<td>Dulles Airport</td>
<td>1168</td>
<td>1291</td>
<td>1507</td>
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<tr>
<td>Frostburg, MD</td>
<td>714</td>
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<tr>
<td>Martinsburg, WV</td>
<td>1200</td>
<td>1188</td>
<td>1433</td>
</tr>
<tr>
<td>National Arboretum</td>
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<td>1508</td>
<td>1843</td>
</tr>
<tr>
<td>Reagan National</td>
<td>1581</td>
<td>1508</td>
<td>1843</td>
</tr>
<tr>
<td>Salisbury</td>
<td>1426</td>
<td>1445</td>
<td>1631</td>
</tr>
<tr>
<td>St. Mary’s City</td>
<td>1308</td>
<td>1378</td>
<td>1677</td>
</tr>
</tbody>
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To check degree day (DD) accumulations in your local area go to: [http://www.weather.com/outdoors/agriculture/growing-degree-days/USMD0100](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.
Upcoming Conferences

Maryland Christmas Tree Association Summer Meeting
June 28, 2014
Location: Gaver Tree Farm, 5501 Detrick Road, Mt. Airy
Contact: 301-865-3515 or gavertreefarm@aol.com

Mid-Season Aronia Tour
July 8, 2014, 5:00 - 7:30 p.m.
Location: Wye Research and Education Center, Queenstown, MD
Contact: Andrew Ristvey, 410-827-8056, aristvey@umd.edu
There is no charge, but you need to register by July 1.

PGMS Green Industry Professional Field Day
July 17, 2014
Location: American University, Washington D.C.
Green Industry Field Day Brochure

Virginia/Mid-Atlantic Regional Aquaculture Best Management Practices Training Workshop
July 23, 2014 2014 8:30 AM – 4 PM.
Location: Hampton Roads Agricultural Research and Extension Center 1444 Diamond Springs Road, Virginia Beach, Virginia.
Free, lunch provided. Pre-registration required: Attendance will be limited to first 50 pre-registrants.
To register please contact: Gail Jamison: 1-757-727-4861, gjamison@vt.edu

Program components:
What are Aquaculture Best Management Practices (BMPs)?; FDA aquaculture regulations, guidelines, and future trends/considerations; State regulators/regulations, and VDACS Fish Health; All about Aquaculture Feeds; BMPs for hatcheries, raceways, ponds, cage culture, hydroponics/aquaponics, recirculating aquaculture systems, harvest and post-harvest handling

PANTS14 - Penn Atlantic Nursery Trade Show
July 30-31, 2014
Pennsylvania Convention Center, Philadelphia
www.pantshow.com or 732-449-4004

Greenhouse Biocontrol Conference
August 6, 2014
Location: Maritime Institute, Linthicum, MD

Fertilizr Applicator Recertification Seminar
Location: Maryland Department of Agriculture, Annapolis, MD
Time: 9:30 a.m. to 11:30 a.m.
Choose any one of the following dates for recertification:
August 7, 2014 or September 3, 2014
Seating is limited, register now. Cost: $12, which includes breakfast
Registration with payment is required no later than one week before the class date. For more information, call 410-841-5959.

Stormwater Management Program
August 20 and 21, 2014

TWO Locations: August 20 - Montgomery County Extension Office, Derwood, MD
August 21 - Robinson Nature Center, Columbia, MD

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.

Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.

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