



TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

July 22, 2011

In This Issue...

- Weather notes
- Ozone damage
- Thousand cankers disease in Virginia
- Black vine weevil
- Spotted wing drosophila
- Rose rosette disease
- Palm scale
- Pythium in turf
- Brown marmorated stink bugs
- Maskell and cryptomeria scale
- Spruce bud scale
- European lecanium scale
- Leafminer in mums
- Green June beetle
- Sand Wasps

Beneficial of the Week
Plant of the Week
Degree days
Conferences

Integrated Pest Management for Commercial Horticulture

www.ipmnet.umd.edu

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

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Regular Contributors:

Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Brian Clark (Extension Educator, Prince George's County)

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)

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Hot, Hot Weather

This week will define the meaning of a "HOT, HOT Summer." Remember this week because damage will show up as scorched plant material sometime in August and September. Make sure to keep watering plants during this hot weather.

Ozone Damage

It's not only the heat that may be affecting landscape plants this week –air quality alerts throughout the region mean that ozone levels are high as well. Ozone can cause stippling, bronzing or bleaching of the foliage of sensitive broadleaf plants. In conifers, such as white pine, yellow or brown mottling, flecking and tip burn can be caused by ozone. Sensitive woody plants include ash, black cherry, crabapple, hemlock, honeylocust, lilac, linden, silver maple, sycamore, tulip poplar and white pine.



Ozone damage on black cherry
Photo: Tim Tigner, Virginia Dept. of Forestry, Bugwood.org



Ozone damage on pine
Photo: Andrew J. Boone, South Carolina Forestry Commission, Bugwood.org

Thousand Cankers Confirmed in Virginia

July 21, 2011

VIRGINIA QUARANTINES MOVEMENT OF WALNUT TREES AND RELATED PRODUCTS FROM CHESTERFIELD AND HENRICO COUNTIES AND THE CITY OF RICHMOND

Contact: Elaine Lidholm, 804.786.7686

The Virginia Department of Agriculture and Consumer Services (VDACS) today placed a temporary quarantine on Chesterfield and Henrico Counties and the city of Richmond following the detection of Thousand Cankers Disease (TCD) in Chesterfield and Henrico Counties. The city of Richmond is included because of its proximity to the locations where the disease was detected. Matthew J. Lohr, VDACS Commissioner, has established the temporary quarantine in an effort to prevent the artificial spread of TCD. Regulated articles that cannot be moved out of the quarantine area include all walnut plants and plant parts of walnut, including logs, stumps, firewood, roots, branches, mulch and chips.

TCD is a disease complex that attacks walnut trees, *Juglans* spp. The fungus *Geosmithia morbida* is vectored by the walnut twig beetle, *Pityophthorus juglandis*, causing small cankers under the bark of the tree. The beetle introduces the fungus while it tunnels beneath the bark. As more beetles attack the tree, the number of cankers increases until they coalesce to girdle twigs and branches, restricting movement of nutrients and eventually killing the tree. Neither the beetle nor the fungus is native to the eastern U.S. Thinning or dead branches will initially occur at the top of the tree which will die from the top down. Trees may be infested for many years before showing symptoms. There is currently no preventive or curative treatment for the disease.

TCD has been present in the western U.S. for years; this is the first detection in Virginia and the first time it has been found east of Knoxville, TN, where it was detected in August 2010. Once established, TCD has the potential to spread to uninfested areas, either through natural means or through the artificial movement of infested articles. VDACS employees in the Office of Plant Industry Services are surveying the affected areas in an effort to determine the extent of this infestation and the source of TCD in Chesterfield and Henrico Counties. The actual source may be difficult to determine since the infestation likely occurred several years ago.

Black Vine Weevils Are Active in Mid to late July

Adult black vine weevils, *Otiorhynchus sulcatus*, are active at night feeding on the foliage of taxus yews, rhododendrons, euonymus, astilbe, heuchera, hosta and many other herbaceous perennials. The damage is a notching of the leaf margin. Females reproduce parthenogenetically. No males are produced. Females lay white eggs into the soil around host plants. The white grub-like larva is legless and slightly c-shaped. The larvae feed at the base of the plant. On woody plants the larvae can girdle the plant. Larvae feeding on herbaceous perennial plants cut the plant off at the soil line. We have examined heuchera and astilbe where the top of the plant just falls off from the feeding injury. The larvae can be controlled with soil applications of systemic insecticides such as imidacloprid (many brand names) or dinotefuron (Safari).



Black vine weevil larva
Photo: Peggy Greb, USDA Agric. Res. Service, Bugwood.org



Damage from black vine weevil
Photo: Jim Baker, North Carolina State University, Bugwood.org



Black vine weevil adults
Photo: Kent Loeffler, Cornell University, Bugwood.org

Spotted Wing Drosophila Fly

Last year I (Stanton) published an article in the weekly IPM Alert about a pest found on the West Coast. This month, it has been found in New Jersey and Virginia. We want to know if it is in Maryland and we need your help. The pest is the spotted wing drosophila (SWD), *Drosophila suzukii* (Matsumura), that was introduced into Hawaii several years ago. It was found infesting strawberries, raspberries and blackberries in California in 2008. In 2009, it spread up the Pacific Coast to infest fruit in Oregon, Washington, and the Fraser Valley of British Columbia. In 2009, it was found in Florida and in 2010 it was found in South Carolina, North Carolina and Michigan. This pest is getting around rapidly.

Hosts Plants: Apples, blackberries, blueberries, cherries, nectarines, peaches, pears, plums, grapes, raspberries, and strawberries. Cherries are a preferred early season host, and grapes are a preferred late season host.

Control: Pyrethroids and carbamates and some organophosphates seem to control it; neonectodinoids are only mildly effective against this pest.

More information and photos are available at <http://www.ipm.msu.edu/SWD.htm>. If you see this pest in Maryland contact me with a digital picture at sgill@umd.edu. Thanks.

Rose Rosette Disease

Steve Sullivan, The Brickman Group, brought by samples of Knockout roses with rose rosette disease. Steve noted that he sees this disease in many areas where chemicals have not been applied and that it starts on a couple of plants and keeps spreading. Symptoms of rose rosette disease vary, but some of the more recognizable symptoms include rapid elongation of new shoots and witches' broom on small branches. Leaves are small, distorted, and may have a conspicuous red pigmentation. The red pigmentation is not a consistent symptom. Canes can develop excessive growth of unusually soft and pliable red or green thorns which may stiffen later. This excessive thorniness on the stems is diagnostic for rose rosette disease. Flowers may be distorted with fewer petals than normal, and flower color may be abnormal. Diseased plants may not exhibit all of these symptoms, especially in the early stages of the disease, so diagnosis can be difficult. The red pigmentation may be subtle and hard to distinguish from the normal reddish tinge of new leaves in spring. Monitor roses closely for symptoms to catch this disease as early as possible to help prevent its spread to nearby plants.

Control: Once a plant is infected there is no cure. The plant will die over the next 2 – 4 years. Plants that are showing all of the symptoms should be destroyed immediately. Some people try to control the eriophyid mite that spreads the disease which involves applying Avid to the foliage every two weeks from May through October. This is obviously a lot of spraying. Forbid does have eriophyid mites on the label. It should provide control for at least 2 - 3 weeks. You might be able to extend the spray intervals.



Rose rosette disease
Photos: Steve Sullivan, The Brickman Group

Palm Scale on Pachysandra

Paul Wolfe, Integrated Tree Care, called in to report that he found palm scale, *Abgrallaspis cyanophylli*, on pachysandra this week. John Davidson, University of Maryland, made the identification. This armored scale has a female cover that is flat, irregular-circular to elongate-oval in shape. It is semitransparent and slightly whitish in color. Usually this scale is found on the undersides of leaves. It is a southern species but it has adapted to Maryland very well. This species feeds on over 175 plant genera.

Pythium in Turf

Steve Castrogiovanni, Mead Tree Experts, has found pythium infecting turf this week. The hot, humid weather provides good conditions for this disease to develop. Note the white mycelium of this fungus in the photo.

For more information, go to <http://www.ces.purdue.edu/extmedia/BP/BP-109-W.pdf>



Pythium in turf
Photo: Steve Castrogiovanni, Mead Tree Experts

Brown Marmorated Stink Bug (BMSB)

Bob Nixon found brown marmorated stink bugs on tomatoes on July 18. The bugs and damage were on a Brandywine (Sudduth's Strain). John Cimabue is noticing this week that there are about 50-100 dead stink bug at each of the 100-watt, ground landscape lights at a property in Potomac. He did not notice any dead bugs last year. John also saw about 200 on a wall and 50 dead on the ground in an area with lights at a gas station in Carroll County.



Damage and stink bug adult on tomato
Photos: Bob Nixon

Dead stink bugs on light
Photo: John Cimabue

Maskell Scale and Cryptomeria Scale

John Speaker brought in several samples of Leyland cypress with scale this week. Maskell scale was on one sample and cryptomeria scale was on the other one. The second generation of crawlers of the Maskell scale should be emerging in early August. There were mainly females of this scale on the sample at this time. Look on the needles for the elongated covers of this scale. Second generation crawlers of cryptomeria scale crawlers are found in late August through September.

Control: Distance and 1% oil when crawlers are present.



Maskell scale on Leyland cypress

Univ. of MD

Spruce Bud Scale

Examine spruce for the crawlers of spruce bud scale this week. This scale infests twigs, usually on the lower branches.

Control: Talus, Distance or horticultural oil if the plant is not under drought stress. Oils will remove the blue waxy coating of blue spruces.

European Lecanium Scale

There are still crawlers of European lecanium scale emerging this week. Many settled 1st instars are present.

Control: Talus, Distance or horticultural oil if the plant is not under drought stress. This scale can be controlled using TriStar spray, Safari or Imidacloprid.

Leafminer in Mums

Dan Gilrein, Cornell University Extension, has received reports from several nurseries on Long Island of a blotch leafminer in mums. So far, it has been mostly reported in the 'Cheryl' series. If you are seeing this leafminer, let Stanton Gill know at sgill@umd.edu.



Leafminer damage on mum foliage
Photo: Dan Gilrein, Cornell University

Green June Beetle

Norm Brady, Bartlett Tree Experts, is finding green June beetles stripping birch, oak and apple trees. The beetles seem to prefer smaller trees which they strip over night. He also noted that on larger trees, they seem to concentrate on lower foliage (seldom feeding over 15 - 20 feet high).

Sand Wasps

Norm Brady, Bartlett Tree Experts, is seeing sand wasp activity on the Eastern Shore. He also observed a crow feeding on either the wasp or its larvae after the adult went back to its hole. These solitary wasps feed their larvae with flies and other insects.

Beneficial of the Week, Brian Clark

Cicada Killers and Velvet Ants (Cow Killers)

Brian Clark, UME, reported spotting cicada killer and cow killer males flying around a site in Upper Marlboro trying to establish dominance over an obviously great breeding site. Cicada killers were also active at a cut flower operation this week. These wasps usually do not bother 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 them about these wasps, it is best to leave them alone.



Male velvet ants
Photo: Brian Clark, UME



Cicada killer wasp on hydrangea

Cow killers or velvet ants are bright, hairy wasps in the Mutillidae family. The females are wingless, resembling bright, fuzzy ants. They use this hairy wingless design to penetrate the nests of ground dwelling wasps and bees. Did I mention a ground dwelling wasp in the previous paragraph? Hmmmmm. She lays her eggs on the larvae of the host, where the young velvet ant eventually consumes the other wasp larvae. Adult velvet ants feed on nectar and water. Mutillidae females have very powerful venom and are the only ones that sting. The sting can be so painful that it was believed it could cause deaths of cows.

Weed of the Week, Chuck Schuster

Velvetleaf, *Abutilon theophrasti*, is an erect summer annual from Asia that can be found in nurseries and landscapes throughout the United States. It is considered noxious in some states (not Maryland). This broadleaf weed can grow up to seven feet in height with an unbranched stem and leaves that are heart shaped, alternate, and two to six inches in diameter. The leaves are densely covered with hair on both upper and lower surfaces giving the plant a velvety feeling (thus the plant's common name). The leaf veins originate from a central common point and radiate outward.

Single flowers are produced on a short stalk between the stems and petioles. These flowers will be from ½ to 1 inch in diameter with orange petals and will occur from mid-July through late fall. Seed produced will remain viable for several years. Improperly composted plant material containing livestock manure can be a source of this weed into new areas.

Control of velvetleaf is accomplished early in the season with pre-emergent broad leaf herbicides isoxaben (Gallery) (Snapshot – a combination of Isoxaben and Trifluralin), Surflan, and post emergent with the use of glufosinate (Finale) and products that include glyphosate.



Velvetleaf
Photos: Jim McGibney, Maryland
Transportation Authority

Plant of the Week, Ginny Rosenkranz

Crape myrtle (*Lagerstroemia indica*) used to be considered a southern plant, but with recent plant breeding and climate changes crape myrtle are now rated by the USDA hardiness zone as 6-9. Too often crape myrtles become trimmed inappropriately in an attempt to keep them too small. Pollarding involves removal of the apical dominated central leaders of the plants, and is done annually with the result of a flush of slender shoots and branches each spring. There is a difference between pollarding and topping. Pollarding involves pruning to a viable bud so the plants can heal themselves, while topping is just cutting the plants evenly at a designated height, leaving long and short stubs of branches that will rot down to the topping line. Rather than purchasing a crape myrtle that will need to be reduced in height eventually, pick a



Lagerstroemia Pink Velour®
Photo: Ginny Rosenkranz, UME

plant that will only grow as tall as is needed. There are a large number of crape myrtles that grow up 5-12 feet tall and they come in lots of colors of flowers, colorful fall foliage and exfoliating bark. Insect pests include aphids, Japanese beetles, Asian ambrosia beetle. Diseases include sooty mold, tip blight, leaf spot Botryosphaeria canker, and root rot.



Lagerstroemia Dynamite® in the summer and fall
Photos: Ginny Rosenkranz, UME

Crape Myrtle That Grow 5-12 Feet Include:

Cultivar	Flower color	Fall color	Bark color
'Acoma'	White	Red-purple	Light grey
'Caddo'	Bright pink	Orange red	Cinnamon brown
'Hopi'	Light pink	Orange red	Grey brown
'Pecos'	Medium pink	Maroon	Dark brown
'Tonto'	Fuchsia	Maroon	Cream to taupe
'Zuni'	Medium lavender	Dark red	Light brown grey
Royal Velvet™	Bright pink	Burgundy wine	Brown
Tightwad Red™	dark red	Wine	Brown
Siren Red™	Dark red	Wine	Brown

Crape Myrtle That Grow From 13- 20 Feet Include:

Cultivar	Flower color	Fall color	Bark color
'Apalachee'	Light lavender	Orange russet	Grey brown
'Comanche'	Dark coral pink	Purple red	Light sandalwood
'Lipan'	Medium lavender	Orange russet	White to beige
'Osage'	Light pink	Red	Chestnut brown
'Sioux'	Dark pink	Red purple	Grey brown
'Yuma'	Bi-colored lavender	Yellow orange	Light grey
Dynamite™	Cherry red	Crimson	Grey brown
'Peppermint Lace'	Deep pink edged w/white	yellow	Cinnamon brown
Raspberry Sundae™	Crimson buds to cardinal red	Bright orange	Grey brown
Pink Velour™	Bright pink	Dark wine	Grey brown
Red Rocket™	Cherry red	Dark wine	Grey brown
Burgundy Cotton™	Pink buds to white flowers	Dark wine	Grey brown
Rhapsody in Pink	Light pink	Dark wine	Grey brown

Degree Days (As of July 21)

Baltimore, MD (BWI)	2264
Dulles Airport	2179
Frostburg, MD	1426
Martinsburg, WV	1982
National Arboretum	2481
Reagan National	2472
Salisbury	2355

Upcoming Programs:

August 1, 2011

Cut Flower Tour in Southern Maryland
Locations: Mechanicsville and Loveville, MD
Contact: 301-596-9413

August 4, 2011

PGMS DC August Branch Meeting
Location: Bartlett Tree Experts, 1 Metropolitan Ct, Gaithersburg, MD
Contact: RSVP (space limited) to Adam Newhart, City of Gaithersburg, (O) 301-258-6370 ext. 103

October 20, 2011

Green Industry Energy Program

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