

# ORNAMENTALS

• H O T L I N E •

## INSECTS

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Issue 20

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**ARMORED SCALES OF AUGUST:** Some armored scales have more than one generation a year and our current growing degree days indicate their next generation of crawlers should be active. Japanese maple, white prunicola, white peach, juniper, and cryptomeria scales all have a second generation with crawler activity around 2,430 GDD<sub>50</sub>. Some of the species below are difficult to control.

**JUNIPER SCALE:** Females are circular, dirty white, with a yellow center, looking similar to a fried egg. Males are thin and white with yellowish gold at one end. Crawler activity for the 2nd generation is 1,644 - 2,819 with a peak around 2,159 GDD<sub>50</sub>.

**JAPANESE MAPLE SCALE:** See Issue 12 of Hotline this year for detailed info. The 2nd generation has crawler activity from 2,220 for about eight weeks and peaks around 3,037 GDD<sub>50</sub> in Maryland.

**WHITE PRUNICOLA SCALE:** This armored scale feeds on a number of hosts including: *Acer*, *Alunus*, *Aucuba*, *Buxus*, *Forsythia*, *Ilex*, *Ligustrum*, *Malus*, *Prunus*, *Rhododendron*, *Syringa*, and others. Crawlers of the 2nd generation are active at 2314 - 3586 [3010 peak] GDD. This insect is often confused with white peach scale and is a serious pest on *Prunus*. Male scales are elongate, felted, white and light yellow at one end; whereas females are round with light yellow slightly off center. Scales are usually on bark and fruits, although occasionally on leaves. Males scales are on undersides of heavily infested branches in conspicuous white masses. This and white peach scale should be easy to locate in the landscape because the males will cover stems, branches or trunk and have a felt-like or scaly white appearance.

**WHITE PEACH SCALE** is feeds on over 100 genera of plants including *Buddleia*, *Camellia*, *Clematis*, *Cornus*, *Euonymus*, *Ilex*, *Magnolia*, and *Prunus*. Considerable overlap in hosts with white prunicola scale make the two species are difficult to separate.

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## DISEASES

Nancy Gregory  
Plant Diagnostician

**BACTERIAL LEAF SCORCH (BLS)** is beginning to show up on oaks, especially those in the red oak group, such as northern red oak and pin oak. This disease is caused by a small bacterium (*Xylella fastidiosa*) that colonizes the water-conducting xylem of the tree and disrupts the flow of water to the top of the tree. That is why the disease manifests as a marginal leaf scorch. Symptoms can be very similar to those caused by drought or other environmental stress, and the symptoms of BLS can be more severe in trees under stress. A two day laboratory test is necessary to confirm the

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## What's Hot!

Downy mildew on black-eyed Susan and sunflower are caused by the same Oomycete pathogen and are visible in the landscape now. Downy mildew will not kill the plants, but will be problematic every year if good sanitation is not practiced. Phosphorus acid salts fungicides can be effective if used early.

Please take this IR-4 survey by clicking on the link below. Completing the survey will increase awareness of pests we have in ornamentals and possibly help with funding efforts. The deadline to complete the survey is **September 4, 2015**.

[http://ir4.rutgers.edu/Ornamental/Survey/index.cfm?utm\\_source=Ornamental+Horticulture+Grower+%26+Extension+Survey&utm\\_campaign=grower+survey&utm\\_medium=email](http://ir4.rutgers.edu/Ornamental/Survey/index.cfm?utm_source=Ornamental+Horticulture+Grower+%26+Extension+Survey&utm_campaign=grower+survey&utm_medium=email)



Bacterial Leaf Scorch on Red Oak. Photo credit: Nancy Gregory

For more information

on pests & practices covered in this newsletter, call your County Extension Office

Helpful numbers to know:



Garden Line (for home gardeners only)	831-8862
New Castle County Extension	831-2506
Kent County Extension	730-4000
Sussex County Extension	856-7303

View more pictures at <http://sites.udel.edu/ornamentals/>

UNIVERSITY OF DELAWARE

COOPERATIVE EXTENSION

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## Diseases (Continued)

presence of the bacteria. Susceptible trees include oak, elm, maple, and even weed species such as dandelion, which can serve as reservoirs of bacteria. Bacteria are carried to trees by insects such as sharpshooters. There are no controls that will cure an infected tree, and control of the insect vectors is not feasible. There are reports of success with injections of antibiotics for high value specimen trees, but it is very expensive. Maintaining trees in good vigor and reducing stress are keys to avoiding BLS. Affected trees will eventually need to be removed, so it is always good to think about replacement trees before it is time to take one down, and perhaps start a young tree close to one that will need to come down in a couple of years. Some trees that have **not** been reported as hosts for BLS include black gum, linden, katsura, alder, buckeye, and zelkova.

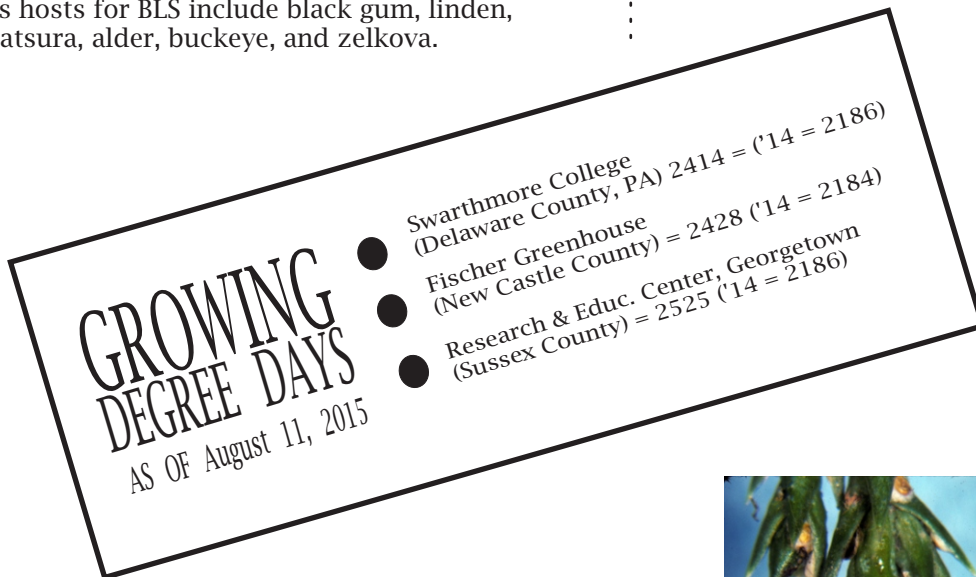
## Insects (Continued)

CRYPTOMERIA SCALE is an armored scale with two generations here in mid-Atlantic region and the second is active from 2109- 3297 [2627 peak] GDD<sub>50</sub>. This scale feeds on pines, yew, Douglas fir, *Cryptomeria*, spruces, and white cedars. The feeding damage causes a chlorosis on needles, distortion of new growth, and stunting. The damage often appears as yellow bands or spots on the needles. We are close to peak cryptomeria scale crawler activity.

Natural enemies such as lady beetles, green lacewings, and parasitoids help keep scale populations low. Possible treatment options include; horticultural oil, insecticidal soap, Distance, Talus, Tristar, Safari, Flagship or one of the pyrethroids. Neonicotinoids have decreased efficacy versus scale feeding on twigs and branches such as white prunicola, white peach, and Japanese Maple scales.

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Editor: Susan Barton  
Extension Horticulturist



Downy mildew on Rudbeckia lower leaf surface. Photo credit: Nancy Gregory



Juniper scale adults Photo credit: US National Collection of Scale Insects Photographs Archive, USDA-ARS, bugwood.org



White prunicola scale. Photo credit: Brian Kunkel



Japanese maple scale. Photo credit: Brian Kunkel