Cooperative Extension

ORNAMENTALS

• H O T L I N E •

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INSECTS

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Ornamental IPM Specialist

JAPANESE MAPLE SCALES are common in landscapes and nurseries and feed on plants from 45 different genera (27 families) including: *Acer*, *Cornus*, *Euonymus*, *Ilex*, *Ligustrum*, *Magnolia*, *Malus*, *Prunus*, *Rosa*, *Syringa*, *Ulmus* and *Zelkova* among others. This armored scale is difficult to control because it has an extended crawler activity period (8 – 10 weeks), two generations a year and is small. Infestations of this scale will cause dieback and eventual plant death. The first generation crawlers are actively moving on hosts now.

This armored scale is long, thin, irregularly oyster-shaped, and has a white waxy covering over a dark brown skin. Males and females look similar and when the covering is removed, immature scales and females typically are light purple. Crawlers are also light purple and settle relatively quickly (usually within hours of emerging). This scale is most often found settled on the bark of host branches, twigs and trunk; however in heavy infestations they may be on foliage. Recent research at the University of Maryland found there are two generations with the first beginning at about 806 GDD_{50} and continuing for about 7 weeks with a peak at 1144 GG_{50}. The second generation starts around 2220 GDD_{50} continuing about 8 weeks with a peak at 3037 GDD_{50}. Research from the efforts of Penn-DEL IPM group found crawler activity of one generation 695- 1973 [846 peak] GDD_{50} and I found additional activity 2260 – 2450 GDD_{50} which probably continued longer.

Scouting for this pest is important in order to time applications. Sample infestations prior to any treatment to inspect for parasitoid activity. The covers of this armored scale remain for a time and can appear unsightly. Successful control can be obtained with horticultural oil, insecticidal soap, insect growth regulators (Distance or Talus), clothianidin or dinotefuran. Tank mixing horticultural oil (0.5%) with the Distance also seems to improve their coverage and efficacy. Tank mixing Talus and horticultural oil may clog nozzels. Stanton Gill and I are conducting an efficacy trial this summer with this pest, and should have information to share this fall or next spring.

DISEASES

Nancy Gregory
Plant Diagnostician

FIRE BLIGHT, caused by the bacterium *Erwina amylovora*, is very destructive to pome fruits, including apples and pears, as well as ornamental callery pears. It causes shoot blight and cankers, and branch cankers allow the pathogen to overwinter. As temperatures rise in the spring, bacteria multiply, causing a yellow exudate to ooze on the bark surfaces before bloom. This allows insects to spread the bacteria before and during bloom.

(Continued)

What's Hot!

Powdery mildew has been seen on crape myrtle, at branch tips. Although common, leaves and buds may become distorted and affect bloom. Prune out to increase air circulation

Powdery mildew on crape myrtle. Photo credit: N. Gregory

Japanese maple scale on red maple. Photo credit: B. Kunkel

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://extension.udel.edu/ornamentals/archive/

Diseases (Continued)
Bacteria are also spread by splashing water and rain, as well as by pruners. Symptoms of wilting, black petioles, and death of shoots, are usually seen 1-4 weeks after bloom. Pre-bloom sprays of copper can help reduce the bacteria on plant surfaces. Prune well below affected areas when weather is dry. There are fire blight resistant rootstock and apple and pear varieties available.

MERMITHID WORMS are unusually large nematodes (3 to 15 cm) that develop as an internal parasite of grasshoppers. The nematode color is pale brown. Adult nematodes are sometimes seen as they crawl on plants, usually following rainy periods in late spring. During this time they lay eggs on plants. Grasshoppers consume the eggs as they feed, the egg hatches and the young nematode burrows into the body cavity of the insect. It feeds on hemolymph and grows, resulting in the death of the grasshopper; then nematodes move out of the insect and into water or soil. These nematodes are sometimes found in pet water bowls or swimming pools. In the soil it has a long period as a free living nematode. Moist conditions are favorable for development of nematode and high populations develop in wet, grassy areas. Although odd, they are not harmful to people or pets.

Fireblight on Callery pear. Photo credit: N. Gregory

Pest and Beneficial Insect Walks:
June 21, 4-6 PM UDBG, Newark
Disease and Insect ID Workshop
July 19, 4-6 PM 012 Townsend Hall, Newark
https://extension.udel.edu/lawngarden/commercial-horticulture/horticulture-short-courses/ for more info.

Editor: Susan Barton
Extension Horticulturist

GROWING DEGREE DAYS
AS OF June 13, 2017

- Swarthmore College (Delaware County, PA) = 862 ('16 =886)
- Fischer Greenhouse (New Castle County) = 884 ('16 = 857)
- Research & Educ. Center, Georgetown (Sussex County) = 1061 ('16 = 942)