Cooperative Extension

ORNAMENTALS

• H O T L I N E •

April 29, 2016

Issue 6

INSECTS

Brian Kunkel
Ornamental IPM Specialist

BOXWOOD LEAFMINER and BOXWOOD PSYLLIDS. Boxwood leafminer are still feeding as larvae or recently started to pupate (48 – 585 [204 peak] GDD50). Adult leafminers may begin emerging from leaves about 192 – 796 [366 peak] GDD50. Adults are small orange-yellow to red and are gnat-like in appearance. They commonly attack Buxus microphylla and B. sempervivens; however, there are resistant cultivars such as 'Handworthiensis', 'Pyramidalis' and 'Varder Valley'. Females mate and die shortly after ovipositing eggs into boxwood leaves. These eggs hatch after three weeks and yellowish larvae begin to feed inside, causing a blister-like blotch to form on the undersides of leaves. Infested leaves may be slightly discolored. There is only one generation per year and larvae overwinter inside the leaves.

BOXWOOD PSYLLIDS are the other common pest found on boxwoods. They are frequently found feeding on cupped leaves at the terminal ends of twigs and branches. In April, nymphs feed and produce white wax in the cupped leaf. Forsythia x intermedia may be in full bloom or growing degree days50 are 64 -714. There is one generation per year and most Buxus sempervirens are susceptible; whereas English boxwoods are relatively resistant. Adults look like miniature cicadas and the nymphs are flattened and green in color.

Little information is known about natural enemies of these pests. Chemical controls for leafminers may target either larvae or adults. Products targeting adults must be properly timed to coincide with adult fly emergence. Applications when weigela is in bloom should reduce populations. Products available for use include abamectin, bifenthrin or other pyrethroids, carbaryl, imidacloprid, dinotefuran, spinosad and acephate. Previous work with Casey Sclar at Longwood Gardens revealed fall soil injections of dinotefuran provided about 70% control of boxwood leafminers

(Continued)

DISEASES

Nancy Gregory
Plant Diagnostician

SPRING LEAF SPOTS can be severe and warrant a fungicide spray or other management. **Apple scab** caused by *Venturia inaequalis* and **frogeye leaf spot** caused by *Botryosphaeria obtusa* can be problematic on apple and crabapple because they also affect other portions of the tree. Apple scab is one of the most serious fungal diseases of apple. Scab-like spots or lesions develop on leaves and fruit, causing leaves to drop and fruit to be unusable. Leaf spots begin as olive green spreading spots, then become more defined and cause leaves to crinkle, crack, and drop. Apple scab is favored by cool, rainy weather often typical in the spring as new leaves expand. Secondary spread can continue with asexual,

(Continued)

What's Hot!

Bark beetles are flying so you may want to treat susceptible trees with bark sprays, and do whatever necessary to encourage healthy happy plants.

▪

Eastern tent caterpillar and forest tent caterpillar tents are more visible currently. Tear open webbing to allow natural enemies to enter and feed. B.t., Conserve or Dimilin (IGR) are options as chemical treatments if necessary.

▪

Bright yellow branches on Pagoda dogwood are due to a fungus called *Cryptodiaporthe*, causal agent of golden canker. Prune these out to remove the dead wood and spores that can spread the infections. Fungicide control is not effective.

Insects (Continued)

by two weeks whereas imidacloprid took more than three months for similar control. Insecticidal soap may be applied to control psyllid nymphs when first detected. Azadirachtin, Beauvaria bassiana, pyrethroids and neonicotinoids are all available chemical options for boxwood psyllids.

Boxwood leafminer. Photo credit: N. Gregory and 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://sites.udel.edu/ornamentals/

Diseases (Continued)

repeating spores. Lesions on fruit will become rough or scab-like over time. Management: Make fungicide applications at pink, petal drop, and 10-14 days later. Apply pesticides according to the labels, especially because there can be some phytotoxicity in apples. Good sanitation and pruning is important in controlling apple scab, and resistant cultivars are available. The asexual stage of *Botryosphaeria (Sphaeropsis)* leads to twig and branch infections on apple that develop into cankers where the fungus overwinters. The cankers can be responsible for long term decline of the tree. Symptoms of frogeye leaf spot are brown to tan spots, with a purple margin. Spots enlarge in a concentric circular pattern, and dark fruiting bodies appear in the center of the spots. Affected leaves may yellow and drop. Management: Trim out branches with cankers, and apply labeled protectant fungicides in the spring.

Early apple scab symptoms on leaf. Photo credit: Bob Mulrooney

Boxwood psyllid damage. Photo credit: N. Gregory and B. Kunkel

Editor: Susan Barton
Extension Horticulturist

GROWING DEGREE DAYS

AS OF April 26, 2016

- Swarthmore College (Delaware County, PA) = 267 ('15 = 169)
- Fischer Greenhouse (New Castle County) = 196 ('15 = 126)
- Research & Educ. Center, Georgetown (Sussex County) = 243 ('15 = 160)

Boxwood psyllid. Photo credit: N. Gregory and B. Kunkel