

# ORNAMENTALS

• H O T L I N E •

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Issue 5

## INSECTS

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Ornamental IPM Specialist

BOXWOOD LEAFMINER are feeding as larvae 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 gnat-like in appearance. They commonly attack *Buxus microphylla* and *B. sempervirens*; 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 at 64-714 GDD50. 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.

Chemical controls for adult leafminers should target adult emergence and include products such as Avid or one of the synthetic pyrethroids. Plant phenological indicators suggest applications when weigela is in bloom would reduce populations. Products targeting larvae should have systemic activity and may include products such as Mainspring, acephate or one of the neonicotinoids. Previous work with Casey Sclar at Longwood Gardens revealed fall soil injections of dinotefuran provided about 70% control of boxwood leafminers.

## DISEASES

Nancy Gregory  
Plant Diagnostician

VIRUSES, especially those in the tospovirus group, affect flowering plants with atypical symptoms and affect hosts that may not normally come to mind. Tobacco mosaic virus (TMV) can be found on petunia and many other hosts. Impatiens necrotic spot virus (INSV) may affect flowering annuals such as coleus, where symptoms include black stem lesions, leaf lesions, and ringspot symptoms on leaves. Viewing with back light can aid in observation of symptoms such as leaf mosaic, mottle or ringspot. Viruses such as tomato spotted wilt virus (TSWV) and INSV may cause chlorotic mottle or black lesions on nemesia, torenia, fuschia, and angelonia, and ringspots on dahlia. Cucumber

## What's Hot!

Trim and rake to remove dead and diseased foliage to rejuvenate groundcover beds of ivy and pachysandra.



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



Tomato spotted wilt virus (TSWV) on dahlia. Photo credit: N. 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://extension.udel.edu/ornamentals/archive/>

UNIVERSITY OF DELAWARE

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COOPERATIVE EXTENSION

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Diseases (Continued)

mosaic virus (CMV) occurs on lobelia, causing symptoms of chloric mottle and leaf spot. Confirmation of virus infection requires lab testing. There is no control for virus infection; plants must be discarded, areas cleaned up, and weed hosts removed. The tospoviruses are typically carried by Western Flower thrips (*Frankliniella occidentalis*), so control of thrips is very important in and near greenhouses and garden centers.

A 2017 listing of FUNGICIDES AND BACTERICIDES Available for Homeowner Use is posted on the UD Cooperative Extension website at: <http://extension.udel.edu/blog/fungicides-and-bactericides-available-for-home-use-2017/> . This listing includes commonly found products at local garden center and “big box” stores” and is not meant to be a recommendation. Always read the label, use labeled products, and apply according to the label.



Symptoms of cucumber mosaic virus (CMV) on lobelia. Photo credit: N. Gregory

Editor: Susan Barton  
Extension Horticulturist

**GROWING DEGREE DAYS**  
AS OF April 18, 2017

- Swarthmore College (Delaware County, PA) = 148 ('16 = 193)
- Fischer Greenhouse (New Castle County) = 182 ('16 = 140)
- Research & Educ. Center, Georgetown (Sussex County) = 234 ('16 = 177)