

ORNAMENTALS

• H O T L I N E •

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Issue 25

INSECTS

Brian Kunkel
Ornamental IPM Specialist

GREENHOUSE and SILVERLEAF WHITEFLIES are insects requiring management on poinsettias in greenhouses. Management is similar; however, there are different biotypes of silverleaf whitefly and there are reports of resistance with biotype Q.

Whiteflies feed leaf undersides, and their piercing/sucking mouthparts extract plant sap. Females oviposit spindle-shaped eggs on leaf undersides in a circular pattern (“fairy ring”). Eggs hatch after about six days and crawlers move short distances before settling to feed. The small oval to circular shaped, white to yellowish or almost transparent nymph feeds for about two or three weeks before pupating. Greenhouse whiteflies have long filaments (hairs, or string-like projections) coming off the pupa. Silverleaf whiteflies do not have these long filaments. Adults emerge and are powdery white. Greenhouse whiteflies hold their wings out flat and are triangular shaped when viewed from the top. Silverleaf whiteflies hold their wings more roof-like over their bodies and look more like a grain of rice when examined from the top. Both species produce honeydew and may cause leaves to yellow when populations become severe.

Scouting is incredibly important for management using sticky cards and trap plants. One to four yellow sticky cards per 1,000 square feet should be inspected weekly. Screening over vents and sanitation are also important. Biological control is an effective non-chemical method of managing whiteflies; however, the correct identification of whitefly species is important. There are a couple parasitoids, a predatory mite, and a predatory beetle that are commercially available. Common insecticides available are insecticidal soap, neonicotinoids, Kontos, Enstar, Endeavor, Pedestal, Adept, azadirachtin and pyrethroids. Stanton Gill and I are investigating several products for whitefly control on poinsettias. Look for results at the end of our trial.

DISEASES

Nancy Gregory
Plant Diagnostician

LEAF DROP is early in scattered locations without trees showing color change, but the wet summer shouldn't have a great impact on fall foliage. Excessive rains of summer have led to widespread occurrence of fungal anthracnose and bacterial leaf scorch in trees, as well as other tree diseases, and resulted in lots of mushrooms and bracket fungi. In disease affected trees, defoliation may be noticeable especially in low lying areas without good air circulation. Moisture from summer, much of it still in the soil, won't affect fall colors. Declining day length, from June 21 through December 21, is the factor that signals trees to slow

(Continued)

What's Hot!

Boxwood blight is in surrounding states. Please see the fact sheet and submit samples if you suspect boxwood blight due to leaf drop and blackened stems: <https://cdn.extension.udel.edu/wp-content/uploads/2016/09/20105525/Boxwood-Blight-DE-fact-sheet-Sept-2016.pdf>

European hornets are still feeding on sugar sources this fall.



European hornets. Photo credit: N. Gregory



Anthracnose leaf spot on silver maple. 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 pictures at <http://sites.udel.edu/ornamentals/>

UNIVERSITY OF DELAWARE

COOPERATIVE EXTENSION

Diseases (Continued)

production of green chlorophyll. Chlorophyll overshadows and masks other leaf colors in spring and summer. Cool nights should help with the intensity of colors in the red to yellow range. Early color may be seen on sugar maple, black gum, poison ivy, Virginia creeper, sumac, black ash and spicebush. Some trees such as cherry and walnut have lost most of their leaves, but new leaves are coming out at the top of the trees. Trees losing leaves to disease should leaf out normally in the spring.

ARMILLARIA ROOT ROT or shoestring root rot is caused by the fungus *Armillaria mellea*, and related species as opportunistic pathogens on stressed hardwoods (and occasionally on conifers). It causes a white rot in wood; spreading through individual trees and from tree to tree by means of black rhizomorphs. Rhizomorphs are root-like structures formed from strands of the fungus joining together, giving the fungus its name shoestring root rot. Fans of mycelium are sometimes seen on dying trees under peeling bark, and insects are attracted to dying trees. Mushroom fruiting bodies typically appear in clusters on wood or in lawns where a tree had been, and are honey brown, have gills under the cap, and a ring on the stem.



Rhizomorphs of *Armillaria*. Photo credit: N. Gregory

Editor: Susan Barton
Extension Horticulturist

GROWING DEGREE DAYS
AS OF October 9, 2018

- Swarthmore College (Delaware County, PA) = 3814 ('17 = 3596)
- Fischer Greenhouse (New Castle County) = 3784 ('17 = 3574)
- Research & Educ. Center, Georgetown (Sussex County) = 4107 ('17 = 3889)



Silverleaf whitefly adult. Photo credit: S. Bauer, USDA ARS, bugwood



Silverleaf whitefly nymph. Photo credit: FL Division of Plant Industry, bugwood



Greenhouse whitefly adult. Photo credit: D. Cappaert, bugwood