

ORNAMENTALS

• H O T L I N E •

August 23, 2019

Issue 22

INSECTS

Brian Kunkel
Ornamental IPM Specialist

EUROPEAN HORNETS: This large wasp resembles yellow jackets but is much larger. It is about 35 mm (1.5 inches) long and brown with yellow markings. Nests are rarely constructed in open areas and are more likely to be found in protected areas such as tree cavities, bird houses, barns, or sheds. During the summer, they feed on large insects such as caterpillars, grasshoppers, flies, and bees.

European hornets can damage ornamental trees and shrubs such as lilacs, rhododendrons, birch, ash, and dogwood. The hornet gains nourishment from the plant sap and the bark may be used as nesting material. Workers expand the nest throughout the summer, and in the fall the next season's queens mate with newly emerged male hornets. European hornets feed on substances high in carbohydrates in the fall. These food sources include overripe fruits, tree sap, soft drinks, juices, and possibly honeydew produced by insects such as aphids or scales. This hornet is also known to attack small fruits such as grapes and consume the sugars. European hornets do not reuse nests and populations die off with the onset of cold weather.

The only effective method of control is nest removal. A pressurized wasp and hornet spray with a range of 10 - 15 feet is desirable. Treatments should be made at dusk or after dark to ensure most of the hornets are in the nest. Caution should be used when treating hornet nests since hornets guard the nest, can sting repeatedly, and can fly at night. Protection of trees is often obtained by applying pyrethroids (e.g., bifenthrin, lambda-cyhalothrin, etc...) to the branches; however, the residues do not persist very long so multiple applications may be needed.

DISEASES

Nancy Gregory
Plant Diagnostician

BACTERIAL LEAF SCORCH symptoms are beginning to show up on northern red oak and pin oak in Newark, where drought stress has worsened symptoms on some trees. Bacterial leaf scorch (BLS) of hardwood trees, shrubs, and herbaceous plants, is caused by the bacterium, *Xylella fastidiosa*. Small, xylem limited bacteria are carried from plant to plant by insects such as leaf hoppers, sharpshooters, and spittlebugs. Symptoms include marginal discoloration or scorch of leaves, usually in late summer or early fall. Marginal discoloration is accompanied by a yellow section next to the brown area. Symptoms are similar to those caused by drought or root issues that interfere with flow of water and nutrients in plants. Plants may not develop symptoms for a year

What's Hot!

Hosta leaves showed damage from slug feeding and feeding of other insects.

Bacterial leaf scorch is showing up at Swarthmore on trees that have traditionally been infected.

Tuliptree/magnolia scale crawlers have started emerging. We are getting closer to peak emergence.

We are expecting rain and a cooler weekend, but check newly planted and even some sensitive established plants for moisture deficits. When we have a dry fall (no idea if this one will be) it is easy to forget trees, shrubs and perennials that were planted in the spring. Most of them are not fully established yet.



European hornet. 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/>

UNIVERSITY OF DELAWARE (Continued) • COOPERATIVE EXTENSION

Cooperative Extension Education in Agriculture and Home Economics, University of Delaware, Delaware State University and the United States Department of Agriculture cooperating. Michelle Rodgers, Director. Distributed in furtherance of Acts of Congress of March 8 and June 30, 1914. It is the policy of the Delaware Cooperative Extension System that no person shall be subjected to discrimination on the grounds of race, color, sex, disability, age, or national origin.

Reference to commercial products or trade names does not imply endorsement by University of Delaware Cooperative Extension or bias against those not mentioned.

Diseases (Continued)

or two after infection, but eventually thinning of branches occurs and trees die within 5 to 8 years. Laboratory testing to confirm presence of causal bacteria relies on sampling approximately 12-15 petioles of leaves. Attached leaves provide the best specimens, with testing most accurate when leaves are collected in late August and September. The UD Plant Diagnostic Clinic charges a \$20 fee for BLS testing. Management is best accomplished by removing severely affected trees, maintaining good plant vigor, and reducing stress on susceptible hosts. Removing weedy vines may also help slow spread.

Editor: Susan Barton
Extension Horticulturist



Bacterial leaf scorch on northern red oak. Photo credit: N. Gregory

**GROWING
DEGREE DAYS**
AS OF August 20, 2019

- Swarthmore College (Delaware County, PA) = 2877 ('18 = 2706)
- Fischer Greenhouse (New Castle County) = 2879 ('18 = 2693)
- Research & Educ. Center, Georgetown (Sussex County) = 3068 ('18 = 2875)