

ORNAMENTALS

• H O T L I N E •

INSECTS

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Issue 9

Brian Kunkel
Ornamental IPM Specialist

EMERALD ASH BORERS (EAB) are ½” bright metallic green beetles first identified in Michigan in 2002 and have killed millions of ash trees in the United States. Typically, borers of this group attack weak, stressed and dying trees; however, emerald ash borers attack apparently healthy trees that have been irrigated and fertilized. EAB attack all ash trees and fringe tree are also susceptible. Adults emerge from ash trees from early May (black locust in full bloom (450 - 550 GDD₅₀)), through early August with peak emergence from mid-June to early July. Adults may live three to six weeks and feed on foliage for at least a week before mating. Adult feeding on trees does not cause significant defoliation. Damage is due to the larvae. Eggs are laid in bark crevices and take about two weeks to hatch and the life cycle is completed in one to two years. Upper portions of trees are colonized before the main tree trunk, which makes recognizing an infested tree difficult.

Canopy thinning is one sign professionals and homeowners can use to indicate EAB presence. The upper third of the tree canopy will start dying back first in ash trees infested with EAB. Epicormic shoots or sprouts from the roots and trunk, and leaves that are larger than normal are other signs of infestation. Bark splitting, D-shaped emergence holes (2 - 3 mm), increased woodpecker activity and frass-packed serpentine galleries underneath the bark also indicate an ash has EAB. Larvae found in the galleries are creamy white colored, flat, legless and have bell-shaped segments.

Trees with 50 - 60% canopy thinning are probably too damaged to be saved with insecticide treatments. Ashes within thirty miles of infested trees are probably at risk. Insecticide applications are usually systemic insecticides applied as 1) soil drenches or injections, 2) trunk injections, 3) lower trunk sprays or other insecticides as cover sprays to the trunk, main branches and foliage as labels permit. Imidacloprid, dinotefuran, emamectin
(Continued)

DISEASES

Nancy Gregory
Plant Diagnostician

RHODODENDRON DIEBACK is common this spring in the northeastern U.S. Regional diagnosticians believe the leaf scorch and dieback is due to temperature and other weather fluctuations over the past year. Broad-leaved evergreens overwinter more successfully if temperatures get cold and stay cold. Rhododendron, mountain laurel, Pieris, and camellia develop leaf scorch when exposed to windy conditions. Saturated soil and high humidity from excessive rainfall leads to poor root health and added stress. Prune out the worst affected branches
(Continued)

What's Hot!

Monilinia blight can be observed on twigs of Kwanzan cherry at this time. Prune back when weather is dry.

Phyllosticta leaf spot on maple is common in the spring but will not affect long term health of trees.

Bagworms are in the dunce cap stage in Sussex county.

Euonymus scale, pine needle scale, white prunicola and white peach scale are active and calico scale crawlers might be active.

Cottony camellia/taxus scale ovisacs are being found on underside of leaves on hollies and other hosts. Expect egg hatch in a week or two.

Insects (Continued)

benzoate, azadiractin, permethrin, bifenthrin, cyfluthrin, and carbaryl are the insecticides most often used for EAB control. Environmental conditions, tree health, timing, product choice are all components that factor into application frequency and effectiveness. Purdue University has constructed cost calculators to determine a successful plan to manage EAB. Research conducted on EAB over the past two decades is available at <http://www.emeraldashborer.info/>. There are parasitoids being researched and released for control of EAB in the Midwest with some success.

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/>

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Diseases (Continued)

following bloom, which will also increase air circulation amid the plant canopy.

ASH RUST has been reported to be severe in northern New Castle County, DE and a moderate amount has been observed in Newark. Leaves, petioles, and green twigs are affected by this fungal rust disease, beginning with yellow leaf spots on upper leaf surfaces. Orange pustules or clusters of spores are produced on the lower leaf surface, petioles, and sometimes twigs. Leaves become distorted and drop by late May to early June, with severe infections leading to noticeable defoliation. Trees should put out a new flush of leaves, but repeated infections will stress trees. The life cycle of the ash rust fungus includes the alternate host of *Spartina* marsh grass, so infections are very dependent on spore production and weather in the spring. Chemical control is usually not warranted for rust, but examine ash trees for emerald ash borer too, especially in trees showing thinning of crowns.

Crown thinning of ash. Photo credit: B. Kunkel



Ash rust. Photo credit: N. Gregory

Editor: Susan Barton
Extension Horticulturist

GROWING DEGREE DAYS
AS OF May 21, 2019

- Swarthmore College (Delaware County, PA) = 535 ('18 = 434)
- Fischer Greenhouse (New Castle County) = 564 ('18 = 450)
- Research & Educ. Center, Georgetown (Sussex County) = 657 ('18 = 534)



Bark splitting from EAB on ash. Photo credit: B. Kunkel



Rhododendron showing marginal leaf scorch and spot. Photo credit: N. Gregory



Serpentine galleries from EAB. Photo credit: B. Kunkel



Woodpecker damage. Photo credit: B. Kunkel



EAB. Photo credit: Kenneth R. Law, USDA APHIS PPQ Bugwood-org

Epicormic growth of ash. Photo credit: Eric R. Day, VPI Bugwood-org

