

ORNAMENTALS

• H O T L I N E •

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Issue 5

INSECTS

Brian Kunkel
Ornamental IPM Specialist

One of our early season pests, the bark beetle, *Xylosandrus germanus* should be present soon. This beetle and the granulate ambrosia beetle, *Xylosandrus crassiusculus*, are two common borers we have in the spring, and attack a variety of tree species.

These small beetles attack weakened or stressed trees as well as apparently healthy trees; often in nursery settings. However, they also attack trees in the landscape. Hosts for *X. germanus* include ash, beech, birch, dogwood, holly, linden, maple, pine and many others. Hosts for *X. crassiusculus* include: *Styrax*, redbud, dogwood, maple, plum, ornamental cherry, sweet gum, magnolia, azalea and many more. After a couple consecutive warm day, females fly to hosts and bore into twigs, branches or trunks of trees. As the female constructs the oviposition chamber, she inoculates the tree with a fungus, which clogs xylem tissues and interferes with vascular functions. Visual evidence of beetles in trees include: toothpick-like frass projections sticking out from infested branches or trunks, small holes on infested branches, or areas of sap oozing/"weeping". Infested trees may die from the galleries, introduced fungus, or from pathogenic fungi such as *Fusarium* taking advantage of entry points caused by the tunneling. Research has found it takes 55 days to complete development from egg to adult.

Monitoring for beetle flight is an important tool for managing these beetles. Research has found ethanol to be the most attractive compound for these two species; therefore, traps with ethanol will attract even small populations. Traps within 0.5 m (1.6 ft) of the ground catch the greatest number of beetles.

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DISEASES

Nancy Gregory
Plant Diagnostician

APPLE SCAB infection periods are currently open due to growth stages and rain events. Spores will be produced from old fruit and bud infections, and spores will infect newly expanding leaves of apple and crabapple. Fungicide sprays (ex. captan, myclobutanil, or thiophanate-methyl) are protectant and should be applied now if blooms are not open, and again after petal fall (do not spray when bees are active). Rotate chemistries to avoid resistance development in fungi.

FIRE BLIGHT infection occurs when apple and pear trees are in bloom, and wet weather promotes spread of the bacterium causing fire blight. Antibiotic sprays can be of some help in

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What's Hot!

TWIG GALLS ON FORSYTHIA have been observed and can be pruned out now. The bumpy galls are produced by infection with the fungus *Phomopsis*, but a bacterium has also been implicated. Branches can eventually be weakened due to growths, so prune when weather is dry and clean pruners between cuts.



Galls on forsythia. Photo credit: N. Gregory

Insects (Continued)

Treatment options include bark sprays with permethrin or bifenthrin on the trunk or major branches of host plants every two weeks until full leaf flush. Focus management efforts on major or high value tree species and infested trees should be kept for 50 days before removal.

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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COOPERATIVE EXTENSION

Diseases (Continued)

management, but are expensive. Timing of antibiotic sprays is critical, and should be applied when trees are flowering and risk is high. Risk of bacterial infection is related to leaf wetness and temperature. Check out the video by Nicole Ward Gauthier from University of Kentucky Extension:

<https://www.youtube.com/watch?v=PdcDXNftoWg>.

For long term management, resistant cultivars of apple are available, and cultural controls, such as pruning well below infected areas when weather is dry are recommended.

Editor: Susan Barton
Extension Horticulturist



Fire blight on callery pear. Photo credit: N. Gregory

GROWING DEGREE DAYS
AS OF April 17, 2018

- Swarthmore College (Delaware County, PA) = 65 ('17 = 148)
- Fischer Greenhouse (New Castle County) = 68 ('17 = 182)
- Research & Educ. Center, Georgetown (Sussex County) = 94 ('17 = 234)



X. germanus. Photo credit: Daniel Adam, Office National des Forets, bugwood.org



X. crassiusculus. Photo credit: Lacy L. Hyche, Auburn University, bugwood.org