

INSECTS

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FLATIDS are a type of plant hopper frequently seen this summer. This rainfall this summer has been good for many plants; consequently, also good for a number of the insects found feeding on them. This group of insects often sit on stems or branches of a variety of host plants and suck out plant juices. Some common plants with evidence of their feeding have been roses, sunflowers, hostas, coneflowers, and many others. Waxy filaments stuck to the twigs, stems, branches or other parts of plants often indicate their presence. Investigation of the waxy areas causes the insect to "shuffle" to the other side of the stem to avoid being spotted or they jump away until the investigator leaves. The wax may cover much of the plant where it is found, but rarely causes lasting injury or negative impact to the health of the plant. Treatments for this insect are not typically warranted; however, if control was desired insecticidal soap, a contact insecticide such as a pyrethroid (active ingredient ends in -thrin), or an insecticide with some systemic properties could be used. A stream of water or wiping clean with a hand will work well but the insects will likely return.

Leafhoppers and tree hoppers are related to flatids and also have been fairly abundant in the landscape this year. SHARPSHOOTERS (Cicadellidae), a type of leafhopper are associated with vectoring bacteria leaf scorch (Xylella fastidiosa). They use piercing-sucking mouthparts to feed on xylem fluid and obtain bacteria from an infected host plant. The bacteria become lodged within the foregut of the insect and within an hour or two could be vectored to a new host plant. (Continued)

JISEASES

Nancy Gregory Plant Diagnostician Ien Rushton. Intern

OAK TATTERS is a disorder we see primarily on white oak, with symptoms of distortion and a shredded or tattered appearance. Loss of interveinal tissue makes leaves look like skeletons. Symptoms are throughout the whole tree, and may affect one isolated tree or numerous trees in a location. The symptoms resemble herbicide injury, but are over the whole tree and not only on one side as is often the case with herbicide drift. One thought is that herbicides may become imbedded in rain events and be widely distributed, but that seems unlikely. I follow a blog posting message board for plant diagnosticians across the country and the VA Tech Clinic had pictures that looked very similar to some of white oak in DE. Red, white and pin oaks in a 10-mile radius in eastern Virginia are affected, but no other plants (Continued)

UNIVERSITY OF DELAWARE

Issue 21

What's Hot!

Leaf blotch on horsechestnut casued by the fungus Guignardia is obvious in the landscape now. It houl not affect the long term heath of the tree.

Insects (Continued)

Shade trees affected by bacteria leaf scorch include flowering dogwood, sweet gum, many oaks, red maple, and London plane tree among others. Alterative hosts include goldenrod, buckeye, English ivy, Oriental bittersweet, mugwort, wild grape and others. The role alternative hosts play in the spread of the disease or source of inoculum for potential vectors is unknown. Vectors are also unknown; however, it is known that some of the insects capable of vectoring X. fastidiosa diseases in other crops (e.g., grapes) have been found in shade trees during the growing season.



Adult flatid with wax. Photo credit: B. Kunkel

more ormati

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ornamentals/

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Diseases (Continued)

in that area are affected. Apparently the same thing happened last year, although it may have only been in red oak then. The main symptoms are "gathering" of the interveinal tissue along the midveins and downward curling of the leaves. VA Dept of Ag interviewed farmers in the area, but does not believe this is due to herbicide injury. We do not think the symptoms are due to insects. The symptoms could have been caused by unusual weather events while leaves were in or emerging from the buds, e.g. sudden temperature drop, etc. We have had two hard winters and two wet springs. No pathogens are found in association with the disorder. Trees usually put out a new flush of leaves. It seems most likely that cold temperatures during leaf expansion are responsible for this disorder.

> Editor: Susan Barton Extension Horticulturist



Oak tatters. Photo credit: Laura Jesse, Iowa State Univ.

Swarthmore College (Delaware County, PA) = 2548 ('17 =2449) riscner Greenhouse (New Castle County) = 2509 ('17 = 2485) Fischer Greenhouse Research & Educ. Center, Georgetown (Sussex County) = 2674 ('17 = 2743) AS OF August 14, 2018



Wax from flatid coating stem. Photo credit: B. Kunkel



Horsechestnut leaf blotch. Photo credit: N. Gregory



Close up of wax and flatid nymphs. Photo credit: B. Kunkel