DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

Department of Plant Pathology

PLANT HEALTH CLINIC NEWS

Issue-25, August 13, 2018

Sherrie Smith

Keiddy Urrea

SPDN Southern Plant Diagnostic Network

This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

The Plant Health Clinic now has a Facebook page:
https://www.facebook.com/UAEXPlantHealthClinic/?pnref=story

Sycamore

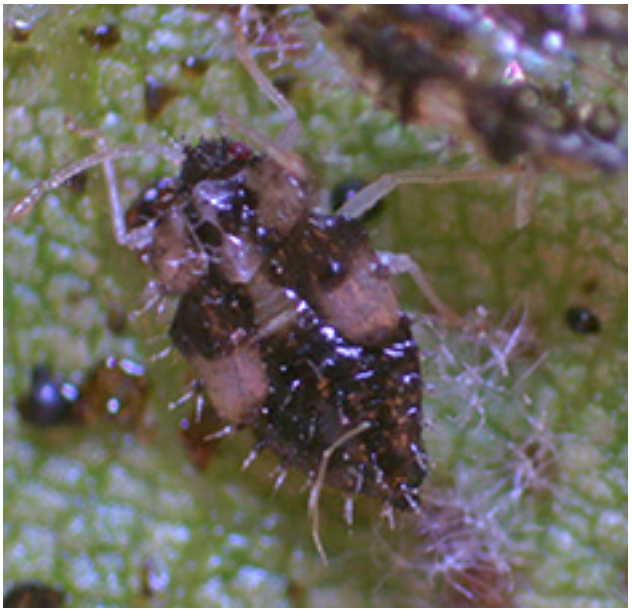
The sycamore lace bug, *Corythucha ciliata* (Say) is a native North American insect that feeds on the underside of sycamore trees (*Platanus* spp., especially *Platanus occidentalis* L.). They have a beak-like mouth part they insert into the plant tissue to feed. Symptoms are a white stippling that can eventually progress into chlorotic or bronzed foliage and premature senescence of leaves. Tell-tale black, shiny dots of lace bug excrement (frass) pattern the underside of the infested leaves. Trees with heavy infestations may suffer premature defoliation by late summer. Year after year of severe infestations along with other stress factors such as Sycamore Anthracnose or drought, may kill trees.

Adults are a grayish-white in color. The nymphs are spiny and predominately black. Adult lace bugs are mobile and can fly or be carried by strong winds to sycamore trees. After mating, the female lace bug lays eggs along leaf veins. A female may lay at least 284 eggs. The nymphs cluster together through the fourth instar, then move to new leaves during the fifth and final instar. Up to five generations a year may occur in the mid-South. They overwinter as adults under the bark or in nearby crevices. Although already stressed trees may suffer from lace bug infestations, healthy trees are seldom seriously injured as the most damage occurs late in the season after the tree has already stored carbohydrates for next season. For that reason, insecticides are seldom recommended.

Sycamore Lace bug damage-
Corythucha ciliata

Sherrie Smith, University of Arkansas Cooperative Extension

Sycamore Lace bug nymph-
Corythucha ciliata



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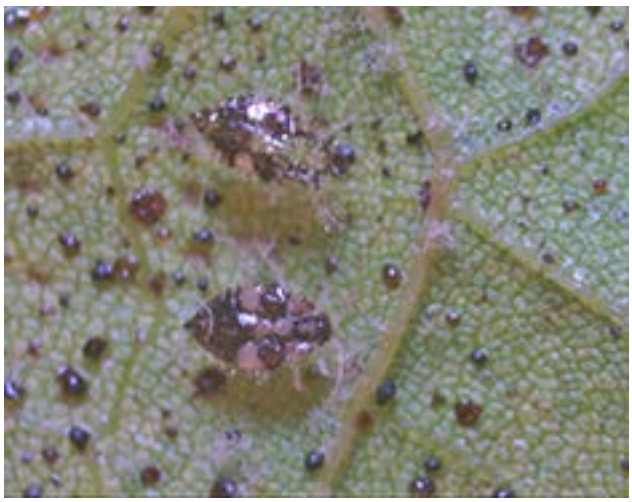
Sycamore Lace bug nymphs and black frass- *Corythucha ciliata*



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Sycamore Lace bug adult and black frass- *Corythucha ciliata*

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Peach

We often get peach fruit with the complaint of a disease when the real problem is insect. The Oriental Fruit moth, *Grapholitha molesta*, is a serious pest of peaches, plums, apples, cherries, pears, and nectarines. This insect damages both tender terminal growths in the spring and the fruit at midsummer. The adult is a small, charcoal colored moth with bands of light and dark lines on the wings. The larvae overwinter in cocoons in bark crevices and in litter at the base of the tree. They emerge as moths in the spring as peaches are blooming and lay eggs on the leaves near terminal growth. The newly hatched larvae attack the tender terminal growth near the base of a leaf. They cause twig dieback by tunneling down the center of the twig for 2 to 6 inches. There are five or more generations a year with later hatches feeding on the fruit. Gum is often exuded from their entry and exit holes. The larvae usually bore to the center of the fruit and feed around the pit. By mid-March, at least two pheromone traps per 10 acre block are set inside the tree canopy at eye level to monitor moth activity and time insecticide applications. The trap should be checked twice a week in order to note first consistent moth emergence in late March and start accumulating degree days (DD) = average daily temperature – 45ºF. Accumulate daily DD from first consistent trap catch (called biofix) until you reach 400 DD which is the time to apply insecticide against hatching larvae (occurs about 6 days after peak moth flight). Second and third generation hatch periods occur at 1,300 and 2,100 DD (sprays) and hatch periods of third to sixth generations overlap. Scouting for wilted shoots is helpful in determining early damage and adjusting spray schedules. Subsequent sprays need to be applied 3 days after peak flight. Actara 25WP, Altacor, Asana XL, Avaunt, Imidan, Provado, and Voliam xpress are labeled for control or Oriental fruit moth. Orchards larger than 4 acres may find the use of mating disruption helpful. Attaching at least 100 pheromone dispensers to middle to upper peach tree canopy per acre are placed throughout the orchard, confusing the male moths and preventing them from mating effectively. These Isomate dispensers may not be registered for use in AR as yet – working on it with Pacific Biocontrol and AR Plant Board.

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Peach Oriental Fruit Moth damage- *Grapholitha molesta*

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Peach Oriental Fruit Moth larvae- *Grapholitha molesta*

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Peach Brown Rot is one of the most serious and pervasive fungal diseases of stone fruits. Brown rot attacks peaches, nectarines, apricots, cherries, and plums. Two species of Monilinia have been identified as causative agents in the United States; *Monilinia fructicola*, and *M. laxa*. Monilinia causes twig and blossom blight in early spring. Flowers turn brown and become a gummy mass. The infection travels down and can girdle the twig. Lens-shaped lesions can form on branches and the trunk. The infected tissue becomes covered with grayish-tan spore mass that provides secondary inoculum for additional infections. Brown rot appears on ripening to mature fruit as a rapidly growing, firm brown decay. Eventually the fruit is covered with the grayish-tan spore masses and eventually mummifies on the tree. Immature fruit that is infected remain on the tree and mummify also. Since Monilinia overwinters on mummified fruit, twigs, and cankers, sanitation is very important in the home orchard. However tedious a procedure, it is helpful to clean up as much infected tissue as possible. Homeowners may use Ortho Home Orchard Spray, or Bonide Fruit Tree Spray, or Hi-Yield Captan 50WP, or Bonide Captan 50WP, or Spectracide Immunox, or Bonide Fung-onil Multipurpose Fungicide Concentrate. Timing of the first sprays is of the utmost importance. Begin at pink bud in the spring and follow label for repeat sprays.

Sherrie Smith, University of Arkansas Cooperative Extension

Apple

Alternaria Blotch of apple, caused by *Alternaria mali*, can cause up to 50% defoliation of trees, and reduction of fruit yield in susceptible cultivars. Delicious apples and cultivars with a Delicious parent are susceptible, including Redgold, Fuji, Mutsu, Jonagold, and Jonathon. The fungus overwinters on fallen leaves and dormant buds. Infection can occur in 5 to 6 hours when temperatures are between 70-75° F. Primary infections appear on leaves in late spring or early summer. Multiple infections can occur throughout the season during hot, wet weather. The spots begin as small, round tan to purplish or blackish spots, with a brownish purple border. Older lesions may coalesce and become darker with a frogeye appearance. Lesions on petioles cause leaves to turn yellow and fall from the tree prematurely. Without leaves to feed the fruit, fruit either falls from the tree or is smaller than normal. Pristine, Sovran, and Fontelis are labeled for control of Alternaria Blotch. Disease incidence should not exceed 40% before applications are made.

Apple **by Keiddy Urrea**

La mancha de la manzana en Estados Unidos es una enfermedad causada por el hongo *Alternaria mali*, Esta enfermedad puede causar defoliación de la planta hasta en un 50 %, reduciendo la producción de los cultivares suseptibles. El cultivar “Delicious” y culivares que tienen a este cultivar como progenitor son susceptibles a esta enfermedad, entre algunos de estos se encuentran los cultivares: Redgold, Fuji, Mutsu, Jonagold, y Jonathon. El hongo *Alternaria mali* sobrevive en las hojas caídas en el suelo y en los brotes latentes. Las infecciones puede ocurrir entre 5 y 6 horas con temperaturas entre 70-75° F. Los síntomas de las infecciones primarias aparecen al final de la primavera o comienzo del verano. Varias infecciones pueden ocurrir durante los meses más calientes y húmedos de año. Los síntomas comienzan como pequeños puntos de color purpura con un borde marrón claro, a medida que progresa la enfermedad las lesiones maduras toman un color más oscuro con halos oscuros alrededor de la lesión. Las lesiones en los peciolos causan que las hojas se amarilleen y se desprendan fácilmente de los arboles.

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La defoliacion prematura de los arboles causa que estos sean más pequeños que en condiciones normales. Los productos recomendados para controlar esta enfermedad son: Pristine, Sovran, y Fontelis. Se recomienda que la severidad de la enfermedad no exceda el 40% antes de las aplicaciones de estos fungicidas.

"This work is supported by the Crop Protection and Pest Management Program [grant no. 2017-70006-27279/project accession no. 1013890] from the USDA National Institute of Food and Agriculture."
https://nifa.usda.gov/sites/default/files/resource/Powerpt_usda_nifa_horizontal_rgb_300.jpg

Apple Alternaria Blotch-
Alternaria mali

Jason Osborn, University of Arkansas Cooperative Extension

Apple Alternaria Blotch-
Alternaria mali

Sherrie Smith, University of Arkansas Cooperative Extension