



Arkansas Plant Health Clinic Newsletter

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Cabbage

Black rot caused by *Xanthomonas campestris* pv. *campestris* is one of the most damaging diseases of crucifers wherever they are grown. Susceptible hosts include broccoli, Brussels sprouts, cabbage, cauliflower, kale, rutabaga and turnip, as well as weeds in the cruciferous family such as shepherd's purse and wild mustard. Yield and quality losses may be high when environmental conditions are conducive for disease development. On seedlings, cotyledons may turn black and drop off. Lesions appear on leaves as yellow, V-shaped spots along the leaf edge, with the base of the V usually directed along a vein. As the lesions expand, the tissue wilts and becomes necrotic. The infection may move up or down the petiole and spread through the stem into the roots. The veins of infected leaves, stems, petioles, and roots become black as the bacterium multiplies and shuts off the flow of nutrients to plant parts. When affected stems are cut crosswise, the vascular ring appears black. Yellow bacterial ooze may exude from cut tissues. The use of clean seed is important in preventing the disease. Seedling rates should not be too high as the dense foliage aids in

disease development. Sprinkler irrigation should be avoided. Fields should only be worked when the foliage is dry. Transplants or seed should not be grown in a spot that has been in crucifers the last 3 years. Plants with visible symptoms should be pulled up and removed from the vicinity of the field. Deep plowing helps break down crop residue faster and should be practiced where practical.

Crucifer Black Rot-*Xanthomonas campestris* pv. *campestris*



**Photo by Sherrie Smith, University of Arkansas
Cooperative Extension**



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 Nymphs and frass-*Corythucha ciliata*

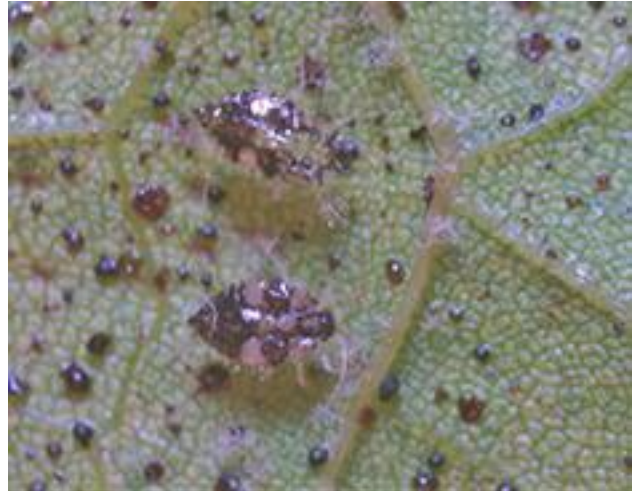


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Sycamore Lace Bug Adult and frass-*Corythucha ciliata*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Sycamore Lace Bug Leaf Damage-*Corythucha ciliata*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pecan

The larvae of the Pecan Hickory Shuck Worm, *Cydia caryana*, can cause significant damage and yield loss to pecan crops. The adult is a nocturnal inconspicuous small gray to smoky black moth approximately 3/8 inch long with a 1/2 inch wingspan. Adult moths emerge from the previous year's shucks in the spring, mate, and lay eggs on newly developing pecan or hickory nutlets, or phylloxera galls. Their feeding activity causes the little pecans to drop. The second-generation feeds on larger nuts, also causing premature nut drop. The third generation does the most damage, mining the nuts, reducing nut fill, and causing the shucks to cling to the shell. Raking up fallen nuts in the fall helps to control overwintering shuck worms. Trees should be sprayed at half-shell hardening and repeated at

2-week intervals until shuck split. Asana XL, Belt, Dimilin 2F, Intrepid 2 F, Lorsban 4 E, Mustang Max, Spin Tor, warrior, and Entrust are labeled for control.

Pecan Hickory Shuck Worm Damage-*Corythucha ciliata*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pecan Hickory Shuck Worm - *Corythucha ciliata*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Issue 30, September 23, 2019

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.

"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."