DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

Department of Plant Pathology

PLANT HEALTH CLINIC NEWS

Issue 27, August 15, 2017

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

Mulberry

Ornamental weeping mulberries are popular small trees, grown for their small size and interesting shape. Fruiting mulberries are grown around the world for their fruit, lumber, and for silkworm production. The Plant Health Clinic receives samples of mulberry leaves at this time of year with a fungal leaf spot caused by *Cercosporella mori* or *Cercospora mori*. The beginning symptoms of this disease are small dark spots in early spring that gradually increase in size through the growing season. The spots gradually become circular with the center appearing as a grayish-white to tan spot with dark brown margins. Spores develop in the lesions during periods of wet weather and high humidity. Severe infections cause defoliation, which can weaken a tree already under stress. Weeping mulberries are small enough to be easily sprayed. Clean up all fallen leaves and spray with an ornamental fungicide. Homeowners may use Fertilome Broad Spectrum Lawn and Garden Fungicide, (chlorothalonil), or Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide,(chlorothalonil) or Ortho Maxx Garden Disease Control, (chlorothalonil), or Ortho Disease B Gon Garden Fungicide, (chlorothalonil), or Garden Tech Daconil Fungicide,(chlorothalonil), or Bonide Fung-onil Multipurpose Fungicide, (chlorothalonil), or Spectracide Immunox Plus, (myclobutanil & permethrin).

It is best to spray trees with a history of the disease early in the season before the spots develop.

Mulberry Leaf Spot-*Cercosporella mori*

Sherrie Smith, University of Arkansas Cooperative Extension

Mulberry Leaf Spot-*Cercosporella mori*

Brad McGinley, University of Arkansas Cooperative Extension

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Lettuce

The collapse of lettuce plants caused by the oomycete Pythium can cause serious crop losses. Symptoms develop on lettuce that is at the rosette stage or older. Infected plants will be stunted and lag behind healthy lettuce. As the disease progresses, outer leaves will start to wilt during the warmer times of the day and eventually turn yellow before becoming brown and dead. In advanced stages, the entire plant can wilt and die. Below ground, the pathogen first attacks the small feeder roots of the lettuce, making them soft and brownish-gray in color. Later in disease development, the taproot will also be darkly discolored and the entire root system can be rotted. Secondary soft rot pathogens may move into the damaged areas and exacerbate the rot. Actinovate may be used in organic systems and hydroponic systems. Ridomil Gold SL may be used in conventional systems. In conventional plantings, improve drainage and do not over water.

Lettuce Wilt-*Pythium* spp.

Sherrie Smith, University of Arkansas Cooperative Extension

Lettuce Wilt-*Pythium* spp.

Sherrie Smith, University of Arkansas Cooperative Extension

Lettuce Soft Rot-*Pectobacterium carotovorum* formerly *Erwinia cartovora*

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Canna

Two species of canna leaf roller are present in Arkansas, the Larger Canna Leaf Roller, *Calpodes ethlius* (Stoll) (Insecta: Lepidoptera: Hesperiidae), and the Lesser Canna Leaf Roller, *Geshna cannalis* (Quaintance) (Insecta: Lepidoptera: Pyralidae). The Plant Health Clinic receives more samples of Lesser Canna Leaf Roller than Greater.

Canna leaf rollers, as their name implies, roll canna leaves and keep them rolled using silk produced by larva (caterpillar). This is accomplished by attaching silk before the leaf unrolls (preferred by the lesser canna leaf roller) or by attaching silk to one edge of the leaf and pulling toward the other edge (usually the larger canna leaf roller). Once rolled, the leaf provides a protective area for the caterpillar to feed. The lesser canna leaf roller caterpillars generally feed on the surface of the leaf and do not chew completely through the leaf, but the larger leaf roller feeds through the leaf. Later when the leaf opens, the feeding damage appears as holes in the leaves and ragged leaf edges.

Canna leaf rollers only feed on plants in the Genus Canna and close relatives, so other plants in the garden are not threatened. This also makes management a little easier because dead plant material can be cut to the ground in winter and disposed of which reduces the number of overwintering larvae and pupae. Systemic insecticides such as Merit or Bayer Advanced Tree and Shrub Systemic Insecticide may be applied. Alternatively, a product applied to the leaves containing Bacillus thuringiensis (BT) gives control without toxicity to organisms other than members of the Lepidoptera.

Lesser Canna Leaf Roller-note the silk ties, *Geshna cannalis*

Sherrie Smith, University of Arkansas Cooperative Extension

Lesser Canna Leaf Roller - *Geshna cannalis*

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Lesser Canna Leaf Roller larva- *Geshna cannalis*

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