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CLINIC NEWS

Issue 28-September 15, 2015

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.

Rose of Sharon

Rose of Sharon is one of our most reliable hardy shrubs for the sunny shrub border. Rose of Sharon flowers continuously in late summer to fall when few other shrubs are in bloom. They grow 8-12 feet tall and 6-10 feet wide. Flowers may be single or double and come in a range of pretty colors, including blue, pink, red, lavender, purple, and white, depending on the variety. For small gardens the dwarf Rose of Sharon Lil' Kim is available. It grows only 3-4 feet tall and wide. Rose of Sharon grows best with full sun to light shade and moist, well-drained soil. They have very few pests. However, homeowners may be startled by the appearance of large numbers of the Scentless plant bug, *Niesthrea louisianica*. These bugs do no damage to the plant itself. They feed mostly on seed pods. They are considered a beneficial insect because of their feeding on a noxious field weed called Velvetleaf.

Rose of Sharon Scentless plant bug-*Niesthrea louisianica*



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Rose of Sharon Scentless plant bug-*Niesthrea louisianica*



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Rose of Sharon-*Hibiscus syriacus*



David Stephens, Bugwood. org



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Pumpkin

The Plant Health Clinic has been receiving many samples of pumpkin and squash with Downy mildew, caused by *Pseudoperonospora cubensis*. This is a devastating fungal disease of cucurbits including cucumber, squash, pumpkin, and watermelon. On all hosts upper leaf symptoms begin as chlorotic flecks or spots on the surface of the leaves. Gray-brown to purplish-black downy sporulation occurs on the corresponding spots on the underside of the leaves. Downy mildew can progress extremely rapidly within a field, causing the leaves to turn brown, necrotic, and curl upwards. Affected leaves become burned looking, shrivel and die. Older leaves are infected first. Although rare, fruit and blooms are occasionally infected. However, it is the leaf loss that results in reduced yields, misshapen fruit, and damaged fruit from sunburn as the leaves die and the fruit lose their protective shade. It's important to begin control measures as soon as Downy mildew is confirmed in your field. Homeowners may use Bonide Mancozeb Flowable w/Zinc in rotation with a vegetable fungicide containing chlorothalonil. The use of resistant cultivars helps delay infection.

Pumpkin Downy mildew- (upper leaf) *Pseudoperonospora cubensis*



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Pumpkin Downy mildew- (lower leaf) *Pseudoperonospora cubensis*



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Pumpkin Downy mildew- sporangia and spores *Pseudoperonospora cubensis*



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Blue Spruce

Cytospora Canker, caused by the fungus *Valsa (Cytospora) kunzei*, is a disease of both Colorado and Norway spruce. The disease is found mostly on stressed trees that have been planted outside their normal range. Heat and drought stress, and injury predispose spruce to infection by Cytospora. Trees do not usually begin to show symptoms until they are ten to fifteen years old. The first symptoms of Cytospora canker are the browning of needles and dying of the lower branches of affected trees. As the disease advances, it spreads to higher branches. Sometimes branches high in the tree are attacked even though lower ones are healthy. The cankers may be discolored, sunken or swollen. They often exude sap which is a bluish-white when dry. Over time, affected trees become ugly and lose their value for ornamental purposes. The progression of Cytospora canker can be slowed by supplying additional water during dry weather and pruning infected branches. Pruning should be done when the tree is dormant. Disinfect pruners or limb loppers with 70% rubbing alcohol, or a 10% bleach solution, (nine cups water to one cup bleach), between cuts to reduce the chance of spreading the disease. There are no chemical controls for Cytospora canker.

Spruce Cytospora canker- *Cytospora kunzei*



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Spruce Cytospora canker- *Cytospora kunzei*



Photo courtesy of Michelle Buchanan, former county agent for University of Arkansas Cooperative Extension Service

Request for help from Dr. Robbins:

Root knot nematode populations are needed for our Arkansas species study. I am a nematologist in the department of Plant Pathology in Fayetteville. My student and I are trying to amass populations of as many species of Root knot nematode (*Meloidogyne* sp.) as possible for species identification using molecular techniques. At present no root knot species in Arkansas have been identified using molecular technology. We are interested in receiving populations from home gardens, shrubs, flowers, trees and grasses. For samples we need about a pint of soil and feeder roots in a sealed plastic bag that is plainly identified by plant host, location (City County, physical address, collector and date of collection). Please send samples to us at the follow address:

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PLANT HEALTH



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