DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

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SPDN
Southern Plant Diagnostic Network

Department of Plant Pathology

PLANT HEALTH CLINIC NEWS

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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.

Sedum

Sedums are hardy, trouble free plants for the sunny border. They are succulents, meaning they have thickened water storage leaves. As a result, most species are drought tolerant and do well in xeriscapes. Although generally healthy, we occasionally receive a sample of Autumn Joy sedum with powdery mildew, caused by *Erysiphe polygoni*. Autumn Joy is a wonderful plant. It is drought tolerant, rabbit resistant, attracts butterflies, and gives extended late season bloom. Sedums planted in too much shade are more likely to develop powdery mildew. Environmental conditions ideal for the disease are greater than 95% relative humidity, and temperatures of between 68°-86°F. Symptoms are brown scab-like spots with a small amount of powdery growth. Fungicides must be applied preventively. Homeowners may use products containing triadimefon (Green Light Fung-Away Fungicide), or myclobutanil (Spectracide Immunox), for powdery mildew control on sedum. Commercial growers may use Bayleton, or Eagle 20EW, or Strike, or Hoist.

Sedum Powdery Mildew-*Erysiphe polygoni*

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Potyviruses are a group of viruses that are spread by more than 200 species of aphids. They account for ~30% of currently known plant viruses, and may cause significant yield losses in agricultural and horticultural crops. Symptoms may include stunting, twisting, strap-like leaves, reduced bloom/fruit, and chlorosis. Viruses are not curable. Plants diagnosed with a virus should be destroyed.

Sedum with a Potyvirus

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Sedum with a Potyvirus

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Bottlebrush (Callistemon)

Guava Rust, *Puccinia psidii,* infects species of Callistemon, Eugenia, Myrcianthes, Pimenta, Syzygium and Eucalyptus among others. Symptoms are twisted or buckled and distorted leaves, premature leaf drop, and killed growing tips. Purple lesions covered with masses of yellow to orange spores will be evident on leaves, shoots, fruits, and sepals. Rust spores may be carried long distances by wind movement to susceptible plants. The spores can also be moved via already infected plant material, clothing, tools, and by insects. Control involves good sanitation and the application of fungicides. Diseased portions of plants should be removed. Heritage, or Banner Maxx, or Strike, or Host, or Contrast may be used by professionals. Homeowners may use Green Light Fung-Away Fungicide, or Fertilome Liquid Systemic Fungicide, or Bayer Advanced Disease Control for Roses, Flowers, Shrubs, or Spectracide Immunox.

Bottlebrush Rust-*Puccinia psidii*

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Bottlebrush Rust-*Puccinia psidii*

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Ash

Susceptible cultivars of Ash are prone to Ash Anthracnose during cool, wet springs. This is a fungal disease caused by *Discula fraxinea*. The fungus overwinters on infected twigs, bud scales, and leaf litter. In the spring the spores are carried by rain and wind to newly emerging leaves and tender new twigs. Symptoms are black blotches on the leaves, leaf distortion, and small purplish-brown spots on the leaves. Premature leaf fall can be dramatic when petioles are infected. The

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tree will re-foliate almost immediately, but year after year of infection followed by having to produce another crop of leaves eventually weakens the tree and permits readier access for insects and other pathogens. Control begins with good sanitation. All fallen leaves and twigs should be raked up and removed. Resistant cultivars should be used when possible. Blue ash (Fraxinus quadrangulata) is very resistant. Pumpkin (F. tomentosa) and American ash (F. americana) are less susceptible than green ash (F. pennsylvanica) and Chinese ash (F. chinensis). Preventative fungicides may be applied at bud swell in the spring followed by a second application two weeks later. Products containing chlorothalonil, or copper may be used.

Ash Anthracnose-*Discula fraxinea*

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Attached are two versions (PDF and WORD) of the current Plant Health Clinic Newsletter - click on the attachment or the download link above to view. For additional information and to see all newsletters and related Plant Health Clinic materials, click on the following link to our main Plant Health Clinic website http://www.uaex.edu/farm-ranch/pest-management/plant-health-clinic/

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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