DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

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SPDN
Southern Plant Diagnostic Network
Issue 11-May 15, 2009

Arkansas Plant Health Clinic Newsletter

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Peach

Prunus Necrotic Ringspot Virus

Prunus Necrotic Ringspot Virus, (PNRSV), is a viral disease that causes ringspots of Peach, cherry, rose, and hops, and mosaic diseases in apple, plum and rose.
PNRSV is transmitted by mechanical inoculation; transmitted by grafting; not transmitted by contact between plants; transmitted by seed; transmitted by pollen to the seed and transmitted by pollen to the pollinated plant. Because the virus is transmitted by pollen, other trees in the orchard are easily infected at bloom in the spring. Depending on the virus strain, symptoms are round necrotic spots, shotholes, chronic chlorotic leaf mottle, leaf enation, deformity, delayed fruit maturity, and fruit ringspots. Some strains produce no symptoms. Virus is not curable. Trees with symptoms should be removed to prevent the spread of the virus to healthy trees.

Peach Prunus Necrotic Ringspot Virus-Ilarvirus

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Cherry Prunus Necrotic Ringspot Virus-Ilarvirus

Photo by M.I. Mink, APS Image Library

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Ambrosia Beetle

Granulate Ambrosia Beetle, *Xylosandrus crassiusculus,* is a destructive pest of red maple, redbud, styrax, ornamental cherry, pecan, peach, plum, persimmon, Japanese maple, golden rain tree, dogwood, sweet gum, Shumard oak, Chinese elm, magnolia, fig, azalea, and others. Unlike other borers, Ambrosia Beetles are attracted to healthy trees as well as distressed trees. These tiny beetles (1.5-3mm) do not feed on the tree. They bore into the heartwood which they inoculate with an ambrosia fungus, *Ambrosiella* spp that they use as their food source. Symptoms are wilting leaves, branch and tree death, and extrusions (toothpicks) of sawdust mixed with frass protruding from the entry holes. The damage is caused by infection by secondary pathogens, which can block xylem vessels and interfere with vascular transport Once beetles are inside trees they cannot be killed with insecticides and fungicides are ineffective against the secondary fungi. Preventive sprays of pyrethroids to prevent entry are the only option. Sprays should be applied when beetles are found in monitoring traps. Heavily infested trees should be removed from the orchard and destroyed.

Peach with Ambrosia Beetle Injury- *Xylosandrus crassiusculus*

Photo by Sherrie Smith, University of ArkansasCooperative Extension

Peach with Ambrosia Beetle Injury- *Xylosandrus crassiusculus*

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Azalea/Rhododendron

Ovulinia petal blight is one of the most devastating diseases of rhododendrons and azaleas. The large, flowered rhododendrons are particularly susceptible. Infected flowers first show small spots which appear water soaked. Spots enlarge rapidly and become very slimy. Entire petals become slimy and limp. Infected spots soon become tan or light brown. Eventually entire flowers turn prematurely brown. Infected flowers generally cling to the plant longer than uninfected ones. Small black sclerotia form on infected flowers 6-8 weeks later. Control consists of removal of leaf litter, applying new mulch to bury any remaining sclerotia, and fungicide treatments. Fungicides such as Bayleton or Daconil should be applied at weekly intervals from just before bud opening throughout the flowering period.

Rhododendron Petal Blight-*Ovulinia azaleae*

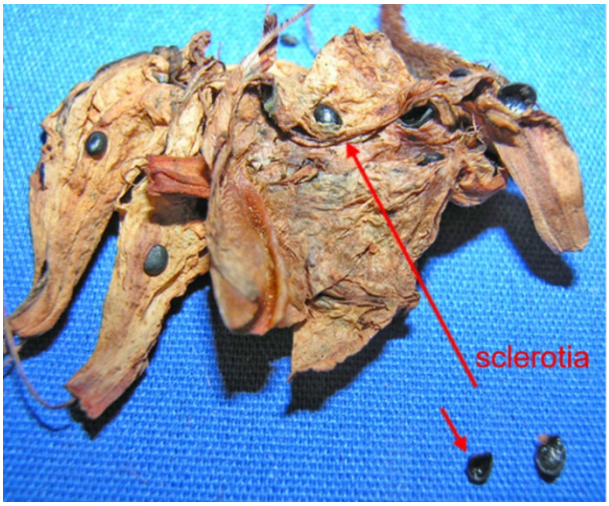

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Camellia

Camellia leaves are sometimes attacked by the fungus *Exobasidium camelliae* from the same genus that causes leaf galls on azalea. This disease is more common on *Camellia sasanqua* than on *Camellia japonica*. Newly emerging leaves are vulnerable to infection in the spring. The affected, leaves become thick, fleshy, and distorted. The galls later become white with masses of spores on the undersides, Spores are wind carried to other plants. The galls eventually harden and become brown. Humid, shady conditions and wet spring weather favor gall formation. The galls are unsightly but do-little real damage. Control consists of picking them off before they release their spores and disposing of them away from the garden. Mancozeb can be applied at 14-day intervals, starting at bud break, and continuing until leaves harden.

Camellia Leaf Gall-*Exobasidium camelliae*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Camellia Leaf Gall-*Exobasidium camelliae*

Photo by Steve Vann, University of Arkansas Cooperative Extension

Oak

Prolonged wet weather has led to increased numbers of oak samples with Oak leaf blister. This disease is caused by the fungus *Taphrina caerulescens*. Symptoms appear in early summer as yellow, blister-like, circular, raised areas, 1/16 to 1/2 inch in diameter. The blisters are scattered over the upper leaf surface with corresponding gray depressions on the lower surface. They turn from yellow to brown with pale yellow margins, becoming dull brown with age. Several blisters may coalesce and cause the leaves to curl. Although unsightly, the disease usually does not greatly impact tree health. Control consists of raking up all fallen leaves and twigs, the application of preventative fungicides where practical. One application of Chlorothalonil, copper, or mancozeb during dormancy is effective. Fungicides do not have any effect after bud swell in the spring.

Oak Leaf Blister-*Taphrina caerulescens*

Photo by Rick Cartwright, University of Arkansas Cooperative Extension

Oak Leaf Blister-*Taphrina caerulescens*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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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.

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