



Arkansas Plant Health Clinic Newsletter

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Pansy

Black Root Rot, caused by the fungus *Thielaviopsis basicola*, is a common and serious disease of many crops including field crops and ornamentals. Cotton, soybean, peanut, begonia, fuchsia, cyclamen, geranium, gerbera, gloxinia, holly, pansy, petunia, phlox, poinsettia, sweet pea, verbena, and violets are some of the crops commonly infected. *Thielaviopsis basicola* is a soil-borne pathogen that can survive in the soil for many years because the fungus forms thick-walled survival spores called chlamydo spores. Above-ground symptoms are stunting, wilting, yellowing, and plant death. When roots are examined, they have small black flecks containing the chlamydo spores. When infection is severe, the entire root may look black. Sanitation in the greenhouse is essential for control of Black Root Rot. Soil and pots should not be re-used. Monthly drenches of fungicides such as Cleary's 3336 are helpful in control if the disease is not too severe.

Pansy Black Root Rot-*Thielaviopsis basicola*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pansy Black Root Rot-*Thielaviopsis basicola*



Photo by Steve Vann, University of Arkansas Cooperative Extension

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Pansy Black Root Rot-*Thielaviopsis basicola*

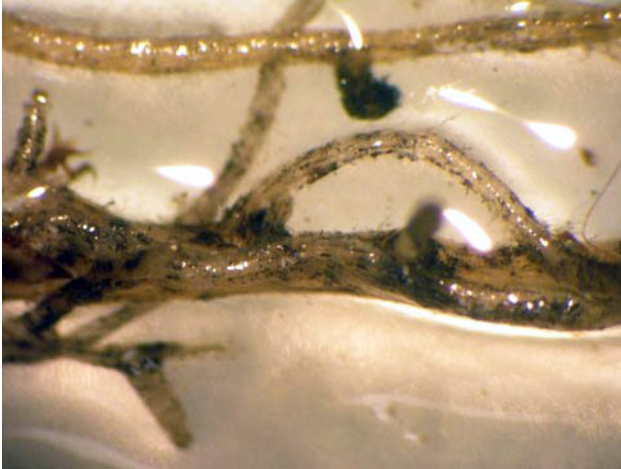


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pansy Black Root Rot-*Thielaviopsis basicola*



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Peony

Peonies are a long lived, reliable and beautiful perennial. They grow best in full sun, planted in

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well-drained soil with a pH of 6.5-7.0. Occasionally the Plant Health Clinic receives a peony sample with bead-like swellings or galls on the roots. The galls closely resemble galls produced by root knot nematodes. However, examination of the galls reveals no nematodes. This disease of peony is known as Lemoine Disease and is thought to be caused by an unidentified viroid, vector unknown. When one of the galls is cut in half, yellow inclusions are found within the gall. Some affected varieties show stunting, reduced flowering, and pitting in the roots. Other peony cultivars show little to no decline, despite having numerous root galls. There is no cure for these plants. They should be discarded. Excellent sanitation should be observed. Since it is possible that this disease is sap transmitted, tools should be kept clean and sanitized between plants, using either a 10% bleach solution or 70% rubbing alcohol.

Peony Lemoine Disease- unidentified viroid



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Willow

A common leaf disease of willows is Cercospora Leaf Spot, caused by *Cercospora salicina*. The spots are 0.5 - 5.0 mm in diameter and round to slightly irregular in shape. The centers of the lesions are with brown but become whitish gray with age and have purple-brown margins. Numerous lesions cause the leaves to turn yellow and fall from the tree. In severe cases, dieback of the branches can occur. All infected twigs and leaves should be removed from the planting. Maneb, Daconil, and Captan have been used as chemical controls, but the large size of willows makes this impractical for most homeowners.

Willow Cercospora Leaf Spot- *Cercospora salicina*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Willow Cercospora Leaf Spot- *Cercospora salicina*

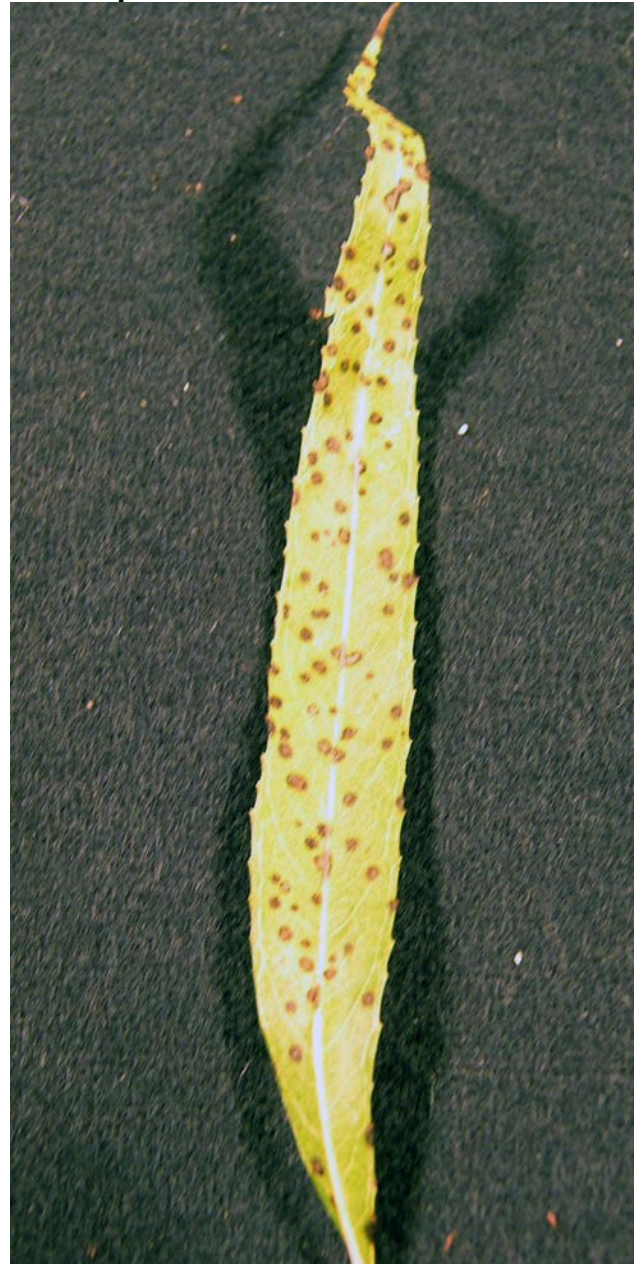


Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Oak

Oak Woolly Aphids, *Stegophylla quercicola*, are sap feeders that are often found on oaks already under stress from factors such as drought or herbicide injury. Heavy infestations can weaken already distressed trees. Yellowing and browning of foliage can occur, along with black sooty mold from aphid excretions. The common name "Woolly Aphid," comes from the waxy, white secretions that cover the aphids. Adult aphids are small insects, 3/10 to 7/10 inch long, with yellowish or greenish bodies covered in "wool." Eggs laid the previous fall hatch into females which give birth to only females. Several generations of all females are born during the summer. In the fall both males and females are produced. They mate and the females lay the eggs which overwinter, thus completing the cycle. If the tree is small enough to make spraying practical, insecticidal soaps are very effective against aphids.

Oak Woolly Aphid-*Stegophylla quercicola*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Oak Woolly Aphid-*Stegophylla quercicola*



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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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