



Arkansas Plant Health Clinic Newsletter

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Ivy

Growers either love English Ivy or hate it. People love it because it does very well in shaded areas, and is accepting of a wide variety of soils, including the acidic soils common in much of Arkansas. Those who hate English Ivy usually have had the experience of trying to eliminate an established bed of it. Once established, English Ivy is very difficult to eradicate. English Ivy lovers are dismayed when their ivy begins to get ugly brown spots on the leaves. Anthracnose, caused by the fungus *Colletotrichum trichellum*, is a disease of English Ivy often encountered in the landscape. Symptoms are circular to irregular dry, brown to reddish brown, or black spots near or on leaf margins. The lesions develop small black fruiting bodies easily seen with a hand lens. The symptoms resemble those of bacterial spot, but the bacterial lesions lack the black fruiting bodies. Ivy anthracnose can be devastating to stands of ivy under conditions favorable to the disease. Defoliation and shoot dieback are common. Good cultural practices are important in controlling anthracnose. Dead leaves and stems should be removed frequently. Avoid overhead irrigation, especially late in the day. Ornamental fungicides labeled for ivy are

mancozeb, and copper compounds. Chlorothalonil is effective but has been reported to cause leaf distortion and spotting on some cultivars.

English Ivy Anthracnose- *Colletotrichum trichellum*



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

English Ivy Anthracnose- *Colletotrichum trichellum*



Photo by Sherrie Smith, University of Arkansas
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Sherrie Smith
Keiddy Urrea

Black Root Rot

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, thyme, 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 chlamydospores. Above-ground symptoms are stunting, wilting, yellowing, and plant death. When roots are examined, they have small black flecks containing the chlamydospores. 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 containing thiophanate-methyl are helpful in control if the disease is not too severe.

Black Root Rot Root with signs- *Thielaviopsis basicola*

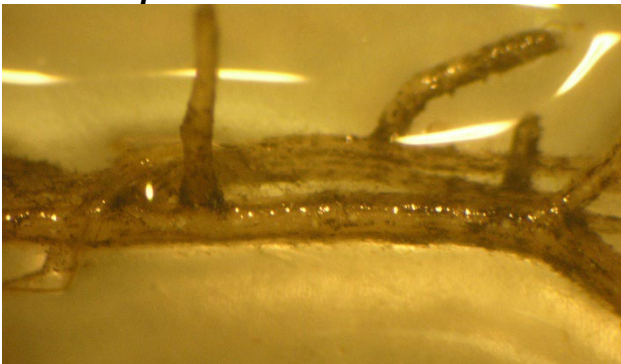


Photo by Sherrie Smith, University of Arkansas
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Black Root Rot Chlamydospores- *Thielaviopsis basicola*



Photo by Sherrie Smith, University of Arkansas
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Thyme Black Root Rot- *Thielaviopsis basicola*



Photo by Sherrie Smith, University of Arkansas
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Apple

Burr Knot is a common, genetic physiological disorder of apples. Differentiated root tissue starts from root initials and becomes a highly branched dwarf root system above the soil line. These growths take on the appearance of rough, raised gall-like areas, usually at nodes. These structures are sometimes mistaken for crown gall which they superficially resemble. Low light, high humidity, and high temperature can work together to stimulate development of the root initial. Severe Burr Knot problems can cause trees to become stunted, girdled, or weakened at the site of the knot. A tree with a heavy fruit load and many Burr Knots may break during windy conditions. Organisms such as dogwood and plum borers, woolly apple aphids, fire blight bacteria, and wood-rotting fungi can attack the tree through the knots. Burr Knot is common on many of the popular rootstocks such as M7, M9, M26, MM111, and Mark. They also occur on scion cultivars such as Springdale, Empire, and Gala. The best solution to the problem is to plant rootstocks that are not genetically disposed to Burr Knot formation. The knots can sometimes be removed by cutting them out. Burr Knots can also be treated with naphthalene acid.

Burr Knot- Abiotic



Photo by Randy Forst, University of Arkansas
Cooperative Extension



Burr Knot- Abiotic



Photo by Grant Beckwith, University of Arkansas Cooperative Extension

Burr Knot- Abiotic



Photo by Allen Bates, University of Arkansas Cooperative Extension

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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"This work is supported by the Crop Protection and Pest Management Program [grant no. 2017-70006-27279/project accession no. 1013890] from the USDA National Institute of Food and Agriculture."