



Arkansas Plant Health Clinic Newsletter

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Corn

Symptoms of Bacterial Stalk Rot of corn and sorghum generally appear in midseason when plants suddenly lodge. One to several internodes above the soil line appears water soaked, tan to dark brown colored, and slimy. The stalk tissue will have a chewed-on appearance and a bad odor. When environmental conditions are right, a top rot can also develop when corn is sprinkler irrigated. Tips of upper leaves wilt and a slimy soft rot occurs at the base of the whorl. The rot spreads rapidly downward until the entire plant collapses. *Erwinia chrysanthemi* pv. *zeae* (synonym *Dickeya zeae*) is the causal agent. It survives only in aboveground residue. Fields most at risk are those prone to flooding and those that are sprinkler irrigated with impounded water. Fortunately, the disease is not common. The best control is achieved by fall plowing to incorporate crop debris and good management practices to avoid flooding.

Corn Bacterial Stalk Rot-*Erwinia chrysanthemi* pv. *zeae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Corn Bacterial Stalk Rot-*Erwinia chrysanthemi* pv. *zeae*



Photo by Grant Beckwith, University of Arkansas Cooperative Extension

Tomato

Southern Blight, caused by the fungus *Sclerotium rolfsii* (teleomorph *Athelia rolfsii*), occurs on hundreds of species of plants, including many vegetables, ornamentals, and field crops. Tomatoes are very susceptible to Southern Blight, also known as Southern wilt. Symptoms usually appear on parts of the plant close to the ground. A brown or black rot of the stem occurs near the soil line. The stem becomes rapidly girdled by the fungus, wilts, and dies. Under moist, humid conditions, white mycelium develops on the lesion and surrounding soil. Tan to reddish-brown spherical sclerotia appear after a few days. The sclerotia resemble mustard seeds and are about 1-2mm (3/64-5/64") in diameter. Fruit touching the ground may also become infected. The

infection site begins as a slightly yellow sunken spot. It then becomes water-soaked, soft, and often star-shaped. Infected fruit collapse within 3-4 days. This disease generally occurs on scattered plants in the field. The sclerotia are viable in the soil for several years. Chemical controls are not effective as a rule. Control consists of crop rotation, deep plowing, and good sanitation. All crop residues should be removed from the field and destroyed. A physical barrier of aluminum foil or plastic to protect the stem at the soil line has been successful for some home gardeners. Blocker (PCNB) applied in-furrow at transplanting is recommended for commercial growers.

Tomato Southern Blight-*Sclerotium rolfsii*

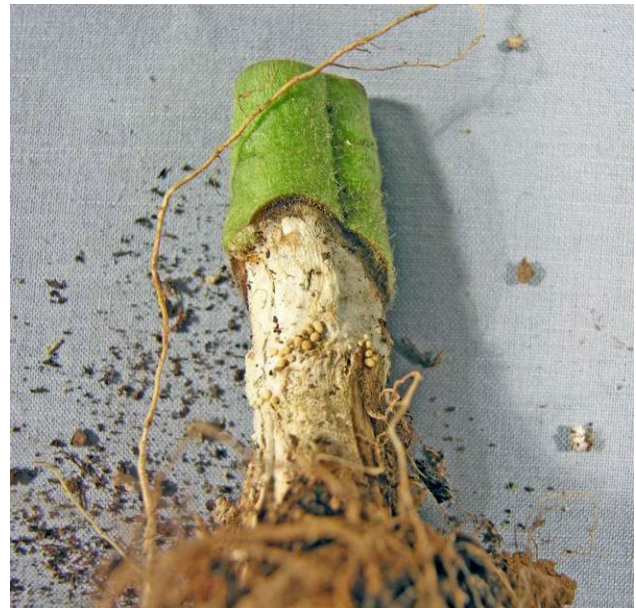


Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Squash Southern Blight-*Sclerotium rolfsii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Green Bean Southern Blight-*Sclerotium rolfsii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Verbascum Southern Blight-*Sclerotium rolfsii*

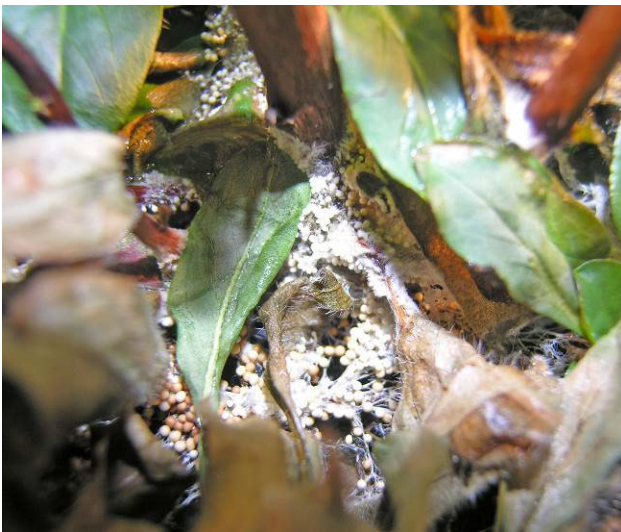


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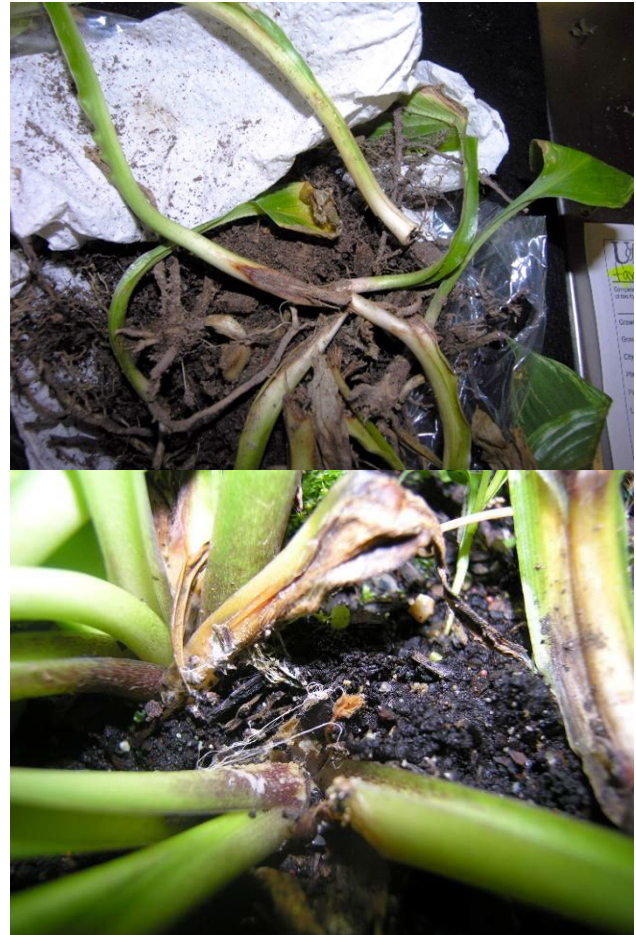


Ajuga Southern Blight-*Sclerotium rolfsii*



Photo by Jim Robbins, University of Arkansas Cooperative Extension

Hosta Southern Blight-*Sclerotium rolfsii*



Photos by Sherrie Smith, 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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