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## CLINIC NEWS

Issue 19, June 27, 2016

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.

### 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 occur at the base of the whorl. The rot spreads rapidly downward until the entire plant collapses. *Erwinia chrysanthemi* pv. *zea* is the causal agent. It survives only in above ground residue. Fields most at risk are those prone to flooding and 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. *zea*



Grant Beckwith, University of Arkansas Cooperative Extension

### Corn Bacterial stalk rot-*Erwinia chrysanthemi* pv. *zea*



Sherrie Smith, University of Arkansas Cooperative Extension

### Tomato

Southern blight, caused by the fungus *Sclerotium 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





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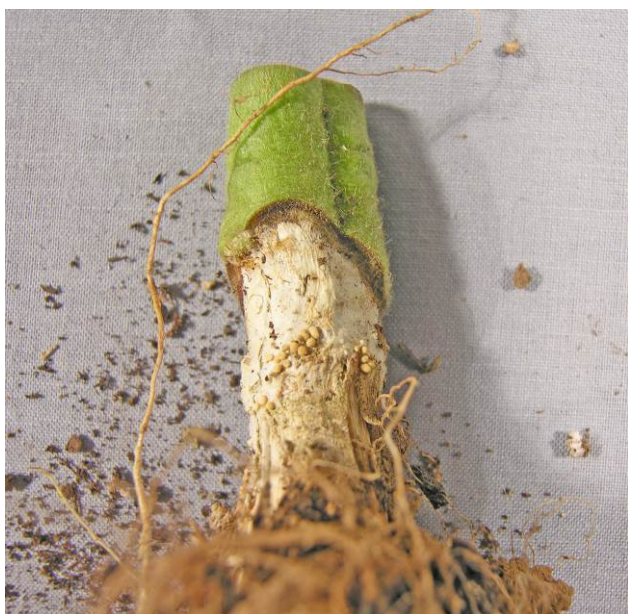
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plant close to the ground. A brown or black rot of the stem occurs near the soil line. The stem becomes rapidly girdled by the fungus, wilts and dies. Under moist, humid conditions, white mycelium develops on the lesion and surrounding soil. Tan to reddish-brown spherical sclerotia appear after a few days. The sclerotia resemble mustard seeds and are about 1-2mm 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*



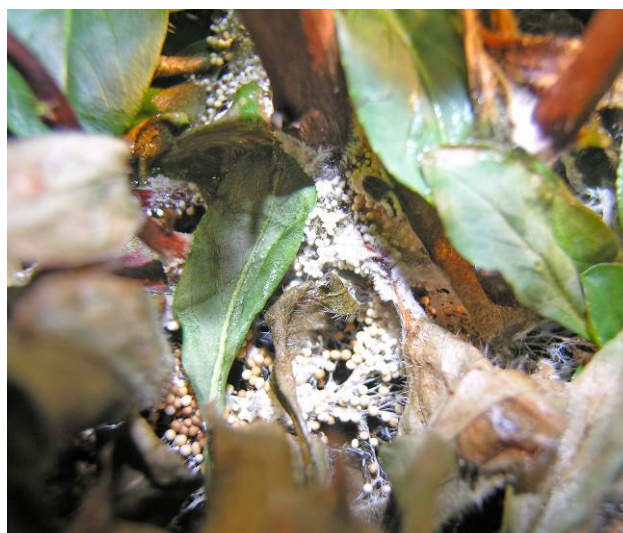
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### Squash Southern blight- *Sclerotium rolfsii*



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### Verbascum Southern blight- *Sclerotium rolfsii*



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### Green bean Southern blight- *Sclerotium rolfsii*



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### Hosta Southern blight- *Sclerotium rolfsii*



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### Ajuga Southern blight- *Sclerotium rolfsii*



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