

Southern Blight

The weather is hot, and plants are wilting. This is normal enough, but then you notice a white growth near the base of the plant and small, white to brown hued, roughly ball-shaped objects amongst this thready white growth. You may have southern blight.

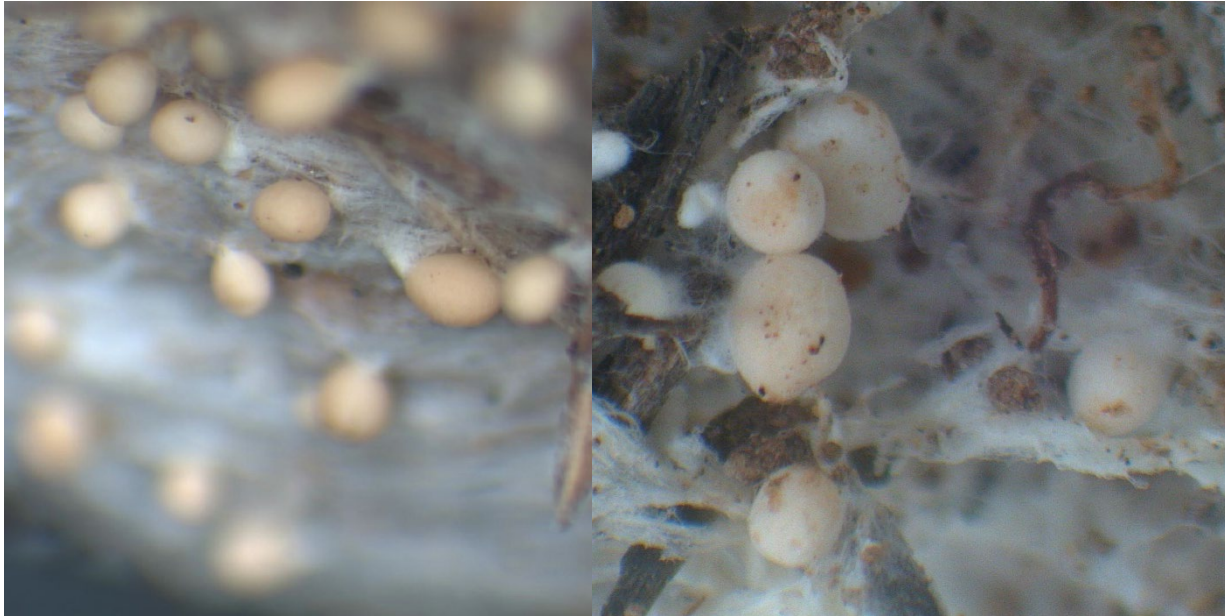


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Southern blight can infect hundreds of different plants. It is a fungus (*Sclerotium rolfsii*) that likes hot moist conditions. If there is a dense canopy, keeping the air moist beneath it or if the soil is frequently watered, keeping the soil moist, it benefits this fungus. *Sclerotium rolfsii* favors temperatures between about 80°F to 95°F (27-35°C), which means it is much more likely to be seen in the summer. Soil with a lot of debris or plant matter that hasn't been decomposed also favors the disease.



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The disease is mostly spread by running water and movement of soil or the use of already infected plants. Southern blight can severely affect several crops, including tomato, watermelon, and peanut. Besides vegetable, fruit, and field crops, the disease can also infect ornamental plants. For example, the images above are from phlox, tomato, bell pepper, and a butterfly bush.

Leaf yellowing and wilting may be the first thing a person notices when a plant is infected. Lesions can often appear near the base of the plant. Under favorable conditions, white fungal strands forming mycelial mats will appear about two to four days after infection, and about a week after infection, the rounded sclerotia can start appearing. These sclerotia are small, around 1/16th of an inch in diameter (1-2 cm), and can be white, tan, orange, brown, or reddish-brown in hue.

Making sure there is plenty of air flow below the canopy will help keep the air and soil drier and less susceptible to southern blight. This can be done by more widely spacing out plants and/or thinning out the canopy. Removing infected plants and the surrounding soil and debris will help control the disease. Be careful not to let any of the collected material fall back to the ground and clean off your equipment, tools, and shoes into the collection of contaminated materials before leaving. In areas with previous infection, one can plant non-hosts for 3 to 4 years to reduce inoculum. Monocots such as corn, sorghum, grasses, and many small grain crops are not hosts to *Sclerotium rolfsii*. If non-host plants are being grown for this purpose, it is important to keep weeds out as much as possible.



Depending on the plants infected, there are also chemical options available to try and control the disease. In Arkansas, one can use the Arkansas Plant Disease Control Products Guide - MP 154 at <https://www.uaex.uada.edu/publications/MP-154.aspx> or consult with your local county extension agents to learn what chemical options may be available to you.