

## *Aerial Blight of Soybean*

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Aerial blight, also called aerial web blight or *Rhizoctonia foliar blight* is a common disease on soybean in the rice growing regions of the U.S. and along the gulf coast. When the disease occurs in rice it is referred to as sheath blight. This disease can cause significant yield loss in both soybean and rice. Extensive yield losses (40-50%) have been reported in soybean when conditions favor disease development.

Foliar symptoms often occur during late vegetative growth stages on the lower portion of the plant following canopy closure. Initially leaf symptoms appear as water-soaked, grayish green lesions that turn tan to brown at maturity (Fig. 1). The pathogen may infect leaves, pods, and stems in the lower canopy. Reddish-brown lesions can form on infected petioles, stems, pods and petiole scars. Long strands of web-like hyphae can spread along affected tissue (Fig. 2) and small (1/16 to 3/16 in. in diameter), dark brown sclerotia form on diseased tissue (Fig. 3).



Figure 1. Water-soaked, greenish lesions caused by aerial blight on soybean leaves. (M. Emerson)



Figure 2. Web-like hyphae of *Rhizoctonia solani* spreading along the stem of soybean. (M. Emerson)



Figure 3. Mature sclerotia of *Rhizoctonia solani* on soybean petiole. (M. Emerson)

Aerial blight is caused by a fungus, *Rhizoctonia solani* AG1-1A, which overwinters as sclerotia in soil or plant debris from the preceding crop. During warm, wet weather mycelium spreads extensively on the surface of plants, forming localized mats of “webbed” foliage. Spread from these localized areas can be rapid when conditions favor disease (high RH and 77 to 90 °F). Because this pathogen also causes sheath blight of rice, soybean fields that follow rice with a history of sheath blight are likely to have high incidence of aerial blight.

There is little resistance to *R. solani* in soybean, but some cultivars are less susceptible than others. Plant the least susceptible and best adapted cultivar. Rotate with poor or non-host crops such as corn or grain sorghum for two-years and avoid narrow row widths and high plant populations are good management practices. When aerial blight is present in highly susceptible cultivars and environmental conditions are favorable for disease, fungicides should be applied.