

Sugarcane Eye Spot Disease ¹

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Eye spot has been reported in many sugarcane-growing areas of the world. It is a minor disease because resistant varieties are grown in most areas. If conditions favor disease development, however, very heavy economic losses may occur. In one case, a 33% loss in cane tonnage was observed. Eyespot was observed in a few growers' fields in 2004, but it is not a problem for Florida growers at this time, thus only the most important features of the disease will be described.

SYMPTOMS

Typical mature eye spot symptoms are characterized by a reddish-brown elliptical lesion (0.5 - 4.0 mm long, 0.5 - 2.0 mm wide) with yellowish-brown margins (Figure 1). Reddish-brown to yellowish-brown streaks, sometimes called "runners," extend upward from individual lesions toward the leaf tip. These streaks are 3 - 6 mm wide and 30 - 90 cm long. The entire leaf may eventually become necrotic (Figure 2).

CAUSAL AGENT

Eye spot disease is caused by the fungus *Bipolaris sacchari*.

SPREAD OF THE DISEASE

Eye spot is transmitted by spores, which are produced abundantly on leaf lesions and are dispersed by wind and rain. Fungal spore germination is favored by high humidity and dew formation. Colonization is more rapid in younger leaves than older leaves. Transmission by seed piece does not occur. Mechanical transmission by equipment and by man is unimportant.

PREVENTION AND CONTROL

The only practical and efficient method of control of eye spot disease is with resistant clones. Resistant clones can be grown in the most favorable environment for the disease without losses. Chemical control using foliar fungicides is not practical.

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1. This document is SS-AGR-203, one of a series of the Agronomy Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. First printed March 1991. Revised March 2005. This publication is also a part of the Florida Sugarcane Handbook, an electronic publication of the Agronomy Department. For more information you may contact the editor of the Sugarcane Handbook, R. A. Gilbert (ragilbert@ifas.ufl.edu). Please visit the EDIS Web site at <http://edis.ifas.ufl.edu>.
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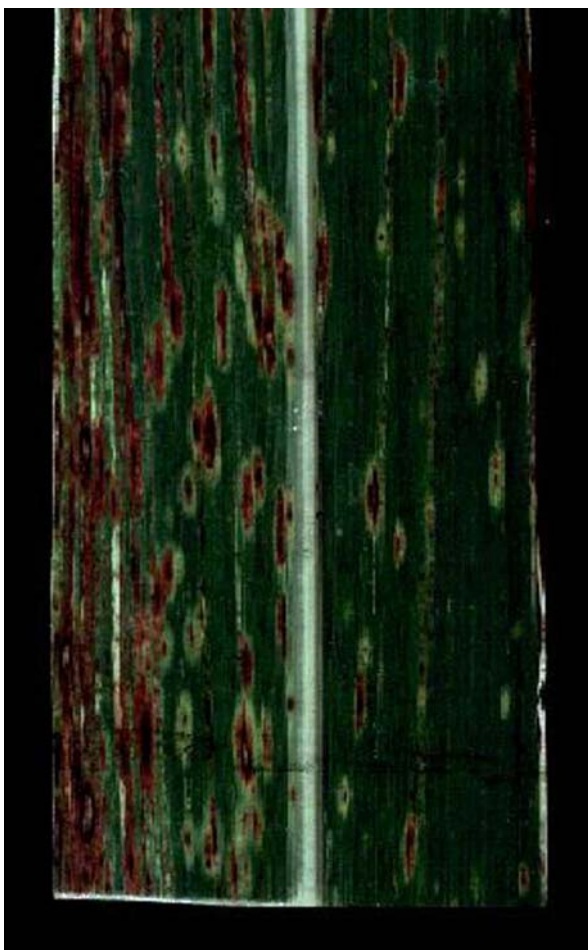


Figure 1. Eye spot lesions on sugarcane leaves.



Figure 2. Leaf necrosis caused by sugarcane eye spot.