

ORANGE RUST OF SUGARCANE: A NEW DISEASE THREAT

Orange rust, caused by the fungus, *Puccinia kuehnii*, was once a minor disease of sugarcane, present only in Asia and Australia. In 2007, it was found in Florida, where it has caused up to 20% yield loss in one of the common varieties. The disease has also been found in Guatemala and Nicaragua and the pathogen will likely spread to other sugarcane-growing areas in the Western Hemisphere, including Texas.

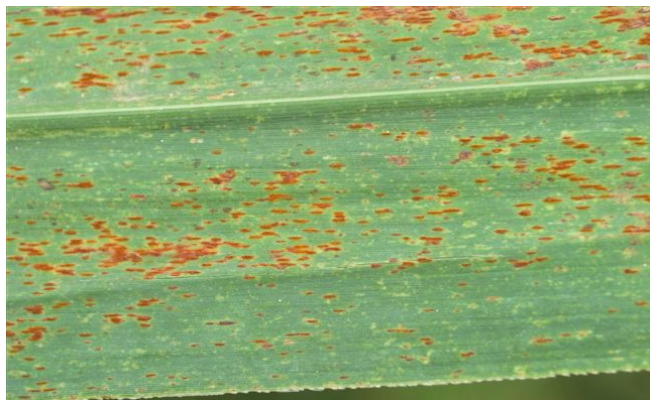


Fig. 1. Symptoms of orange rust on sugarcane. This disease has not yet been found in Texas. (Photo: Jeff Hoy, Louisiana State University.)

The potential impact of orange rust in Texas is not known. There is limited information on the susceptibility of Texas varieties to this disease. Another species of rust on sugarcane, brown rust (also known as common rust), caused by *Puccinia melanocephala*, has been present in Texas since 1979. At present, brown rust is thought to have a minimal effect on yield in Texas, because most of the varieties are resistant to it, or weather conditions do not support extensive disease development in susceptible varieties.

Identification

The photos in this factsheet should be used as a guide to scouting for orange rust. Confirmation of the disease will require a laboratory analysis.



Fig. 2. Orange rust and brown rust on the same leaf, from a field in Australia. (Photo: Kathy Braithwaite, BSES Limited)

Brown rust starts as small, yellow spots on the leaf that increase in size and turn red-brown to brown, as the spores of the fungus develop. Brown rust is most active during the spring. Orange rust also starts out as yellow spots, but the infected areas later turn orange to orange-brown, but they are never brown. Orange rust is most active during the summer.



Fig. 3. Symptoms of brown rust on sugarcane. This disease is present in Texas, but is not a problem. (Photo: T. Isakeit)

WHAT TO DO:

Suspected orange rust should be reported to Rio Grande Valley Sugar Growers (956-636-1411) or to Thomas Isakeit at Texas A&M University (979-862-1340).

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