

LOUISIANA PLANT PATHOLOGY

DISEASE IDENTIFICATION AND MANAGEMENT SERIES

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False Smut of Rice

Ustilaginoidea virens (Cooke) Takah

False smut, caused by the fungus *Ustilaginoidea virens*, is a minor grain disease of rice in Louisiana – although it occasionally develops to epidemic levels in certain areas and is more common on rice grown in the northern parts of the state.

The fungus overwinters as sclerotia in the soil. They germinate and produce spores that infect the grain.

The disease first appears as a large gray to brownish-green fruiting structure covered by a thin membrane that replaces one or more grains of the mature panicle (Figure 1). The membrane ruptures, exposing orange spores (Figure 2). In the center of the ball is a hard structure called a sclerotium that replaced the grain. As the spore balls mature, they turn khaki green to black (Figure 3). Spores (Figure 4) contaminate adjacent grain.

In general, yields are not reduced by this disease, but the spore balls can reduce grain quality.

The disease is more likely with high nitrogen rates and is more common on later planted rice. Most varieties appear to have high levels of resistance, and disease-control measures generally are not required. Fungicides containing propiconazole and copper foliar sprays applied at the boot growth stage suppress disease development.



Figure 1. Early symptoms of false smut



Figure 2. Typical false smut



Figure 3. Late-season false smut

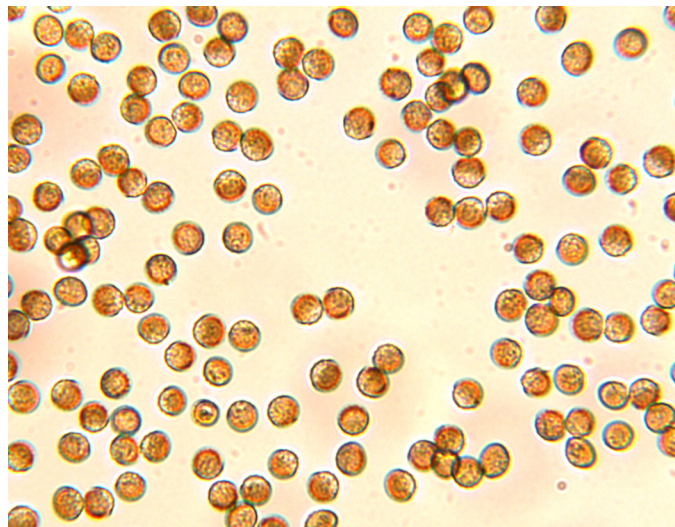


Figure 4. False smut fungal spores

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