

Commercial Crop Production

Field Crops - Oats

DISEASE

Symptoms, source of inoculum and management of diseases of oats.

Crown Rust (*Puccinia coronata*)

Symptoms: Small, scattered, oval or oblong, orange-yellow pustules develop principally on the leaves. Similar pustules may occur on the leaf sheaths, stems (culms) and panicles. The pustules soon break open to release a dusty mass of golden spores.

Source of Inoculum: The source of spores that cause the primary infection during the fall in Louisiana is not known. Disease spreads by windborne spores.

Management: Plant recommended varieties that have resistance to the prevalent races of the rust fungus.

Stem Rust (*Puccinia graminis avenae*)

Symptoms: Elongated, reddish-brown pustules occur on the stem, leaf sheaths, leaf blades and glumes. Pustules rupture the epidermis to expose a powdery, reddish-brown mass of spores. Fragments of epidermis adhere to sides and ends of pustules to give them a ragged appearance.

Source of Inoculum: The source of spores that cause the primary infection is not known. Stem rust has an alternate host, European or common barberry (*Berberis vulgaris*).

Management: Plant recommended varieties that have resistance to the prevalent races of the rust fungus.

Yellow Dwarf (Barley Yellow Dwarf virus)

Symptoms: The most typical symptom is leaf discoloration. Affected oat plants may have leaves that are dull yellow to brilliant red. The red leaf color is not always present, however. Plants infected late in the season may be stunted and have reduced yields.

Source of Inoculum: The virus may live in perennial grasses. Aphids spread the virus.

Management: No practical control measure is available.

Leaf Blotch (*Drechslera avenacea* = *Helminthosporium avenaceum*)

Symptoms: This fungus can cause seedling disease. On older plants the disease appears as reddish-brown, round to oval spots, primarily on leaves and leaf sheaths but sometimes on stems and floret parts. Spots have irregular margins and frequently have sunken centers. Long linear blotches result from merging of spots. Severely infected leaves turn yellow and die.

Source of Inoculum: The fungus can live on seed and plant debris.

Management: Rotate oat crops on different fields.

The oats section was revised October 2022 Boyd Padgett.