



Wheat Leaf Rust ¹
FUNGUS - *Puccinia recondita f. sp. tritici*

- Small round to oval-shaped pustules containing brown spores, found on leaves, awns and spikes
- Pustules are singular or grouped into patches



Wheat Stem Rust ^{2(Left), 3(Right)}
FUNGUS - *Puccinia graminis f. sp. tritici*

- Reddish brown irregular-shaped pustules on stem and leaf sheath of wheat plant
- Poor grain fill with grains shrunken to one-half or two-thirds normal size



Loose Smut ⁴
FUNGUS - *Ustilago tritici*

- Whole spike converted into masses of black spores
- Infected spikes are taller than healthy ones
- Before spike emergence, dark green, erect leaves may be visible on infected plants



Powdery Mildew ⁵
FUNGUS - *Erysiphe graminis f.sp. tritici*

- White or grey-brown powdery patches of cottony mycelia on the upper surface of lower leaves.
- Small brown-black spots in older infected areas
- Yellowing usually visible on the undersides of leaves opposite the powdery patches

References: 1 & 4: Faheem, M. CABI CWA; 2: Donald Groth, Louisiana State University Ag Center, Bugwood.org; 3:NDSU Ext. Service, Rust diseases of wheat, PP-1361; 5: Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org.