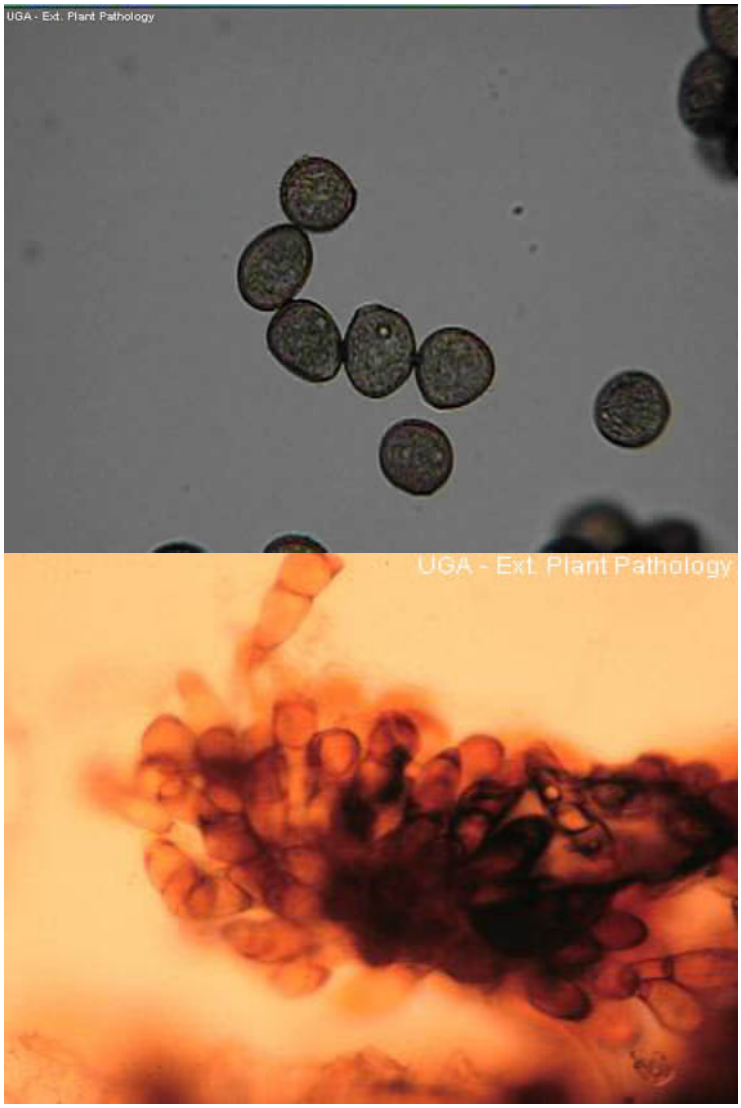
Puccinia (An Example of Rust)

Important diseases: Stem rust of wheat, Corn leaf rust

Puccinia causes rust on cereals, turfgrass, and ornamental grasses and selected non-grass plants. Stem rust of wheat has been a major disease affecting mankind for thousands of years. Rust refers to the appearance of infected plants. Numerous, small, red to orange lesions can be observed on leaf and stem tissue. The coloration of the lesions is due to the masses of pigmented spores produced within the lesions.

Small, roughly circular, reddish-orange lesions are seen on host tissue. The lesions erupt through the host epidermis. The life cycle is complex. Five different spores are produced. Uredospores are the repeating stage of the fungus and is most often observed on heavily infected plants. A single lesion may contain 350,000 spores.

Puccinia lesions start as a small raised area or blister (pustule). The blister ruptures revealing a powdery mass of orange red spores.



Uredospores are small, roughly circular, thick-walled reddish spores found within ruptured rust pustules. Two-celled teliospores are often found with uredospores. Teliospores are reddish-orange, cylindrical with a constriction near the middle of the spore and a thickened "tail."