



FACULTY OF AGRICULTURAL SCIENCES AND ALLIED INDUSTRIES

**DISEASES OF FIELD & HORTICULTURAL CROPS &
Management 1 PPA - 312**

LECTURE 04

NAME OF DISEASE – false smut

Pathogen - *Ustilagoidea virens*

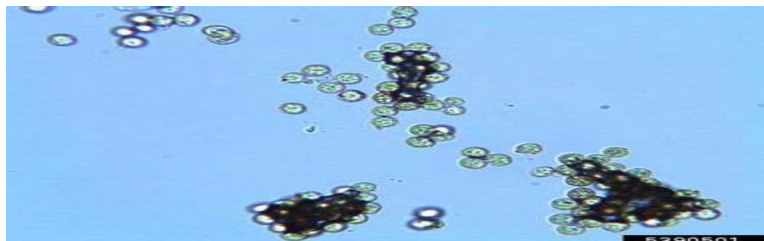
Symptoms

The fungus transforms individual ovaries / grains into greenish spore balls of velvety appearance. Only a few spikelets in a panicle are affected.



Pathogen

*Chlamydo*spores are formed as spore balls which are spherical to elliptical, warty and olivaceous.



Spore balls

Disease Cycle

Grasses and wild rice species are [alternate hosts](#). The main source of inoculum is [airborne](#) spores. [Ascospores](#) produced from [sclerotia](#) act as primary source of infection while [chlamydo spores](#) are secondary source of infection. [Chlamydo spores](#) are air - borne, abundant at heading stage.

Favorable conditions

- Rainfall and cloudy weather during flowering and maturity

Management

- The pathogen is internally seed borne.
- Hot water seed treatment at 45°C for 10 min. effectively controls the disease.