



**FACULTY OF AGRICULTURAL SCIENCES AND ALLIED INDUSTRIES**

**DISEASES OF FIELD CROPS PPA - 301**

## LECTURE 04

**NAME OF DISEASE – false smut**

**Pathogen -** *Ustilagoidea virens*

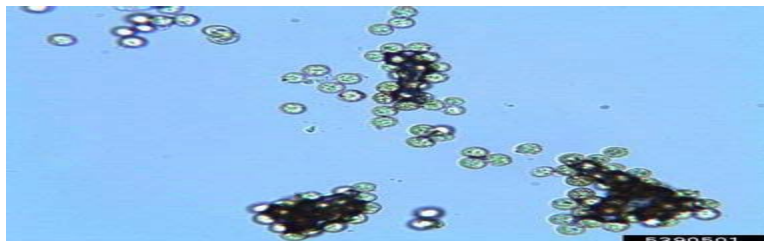
### Symptoms

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.