**Old Bunt of Wheat**

**History and Importance:**

* Most serious disease of wheat in Europe in middle ages
* Also known covered smut of wheat
* Confined to cooler regions
* Difficult to threshing & reduce grain quality

**Etiology:**

Causal organism: *Tilletia controversra*

Order: Ustilaginales

Family: Tillitiaceae

**Symptoms:**

* Pistil from smutted heads become longer
* Stamens reduced in length & breadth
* Smutted ears remain dark green for longer time than normal
* Soft black pasty mass comes out if the grains are pinched with thumb & forefinger

**Disease cycle:**

* Primary inoculum: spores carried on seed or present in soil
* Remain viable in soil for 10 years

**Epidemiology:**

* High relative humidity
* Temp 18-20 °C

**Management:**

* Growing of resistant varieties (Perwaz, Watan, Sehar, Shafaq)
* Use disease free seed
* Seed treatment with Agrosan GN 2%, Benlate o.3%