

Department of Botany

D.B. College, Jaynagar.  
L.N.M.V. DBG.

By: ~~DR.~~ DR. RAMJANA

ASSISTANT PROFESSOR

Date: 24 Sept. 2020

Lecture No: 12

## PART I

### CORE CONCEPT FUNGI

Heteroecious Fungi: The genus *Puccinia* is very wide in distribution. It causes rust diseases of several economically important plant - Wheat, Barley, oats, etc. It includes about 700 species, among which 262 species are reported from India.

Many species of *Puccinia* are autoecious.

They complete their life-cycle on two unrelated hosts. They are known as heteroecious and the phenomenon as heteroecism. *Puccinia graminis tritici* is a macrocyclic heteroecious rust which involves two distinct hosts in its life cycle - Wheat (*Triticum aestivum*) and barberry.

The mycelium is localised to isolated patches on the particular organ attacked. The mycelium is intercellular or intracellular. The former produces small round branched haustoria. The mycelia are septate and septa show a single pore for the cytoplasmic continuity.

Life-cycle of *P. graminis* are divided in five stages which depends nature of spores.

1. Vredo Stages
2. Teleuto Stage
3. Basidial Stage
4. Pycnidial Stage
5. Aecidial Stage.