

B.Sc. (Ag) 2nd Semester, Course – I (D-296): Introductory Plant Pathology

After completing this course the students will be able to understand and explain:

- Definition and importance of plant pathology
- Causes of plant diseases
- Classification of plant diseases according to cause and occurrence

Detail study of following Plant Pathogens:

(a) Fungi

- Economic importance and general characteristics
- Morphology of different vegetative structures (thallus, mycelium, haustoria etc.)
- Reproduction
- Different types of spores.
- Levels of parasitism

Nomenclature & Classification of fungi with special reference to genera listed under following item:

- **Life histories of:** *Pythium, Albugo, Erysiphe, Ustilago, Claviceps* and *Puccinia*.
- **Diagnostic characters of the following genera:** *Phytophthora, Peronospora, Sclerospora, Ustilago, Sphacelotheca, Tolyposporium, Melampsora, Alternaria, Cerospora, Fusarium, Helminthosporium, Pyricularia, Rhizoctonia, Colletotrichum*.

(b) Bacteria:

- Brief history of bacteria as plant pathogens
- Morphology and Cell structure
- Vegetative reproduction
- Brief outline of classification of plant pathogenic bacteria
- **A brief account of mycoplasma.**

(c) Viruses

- Nature and properties
- Transmission of plant virus

(d) Phanerogamic parasites: *Cuscuta, Loranthus, Orobanche* and *Striga*

B.Sc. (Ag) 5th Semester, Course – II (D-596): Crop Diseases and Their Management

After completing this course the students will be able to understand and explain:

- General Symptoms of plant diseases
- Methods of plant disease management.
- Preliminary knowledge of different groups of fungicides.
- **The symptoms, etiology, mode of perpetuation and management of the following diseases:**
 - ◆ Early and late blight of potato.
 - ◆ White rust of crucifers.
 - ◆ Green ear disease of bajra.
 - ◆ Loose smut, Karnal bunt of wheat
 - ◆ Rusts of wheat.
 - ◆ Covered smut of barley.
 - ◆ Grain smut of Jowar
 - ◆ Bajra smut
 - ◆ Rust of linseed
 - ◆ Leaf spot or Tikka disease of groundnut

- ◆ Wilt of arhar
- ◆ Stripe disease of barley
- ◆ Red rot of sugarcane
- ◆ Blast of rice.
- ◆ Citrus canker
- ◆ Khaira disease of paddy
- ◆ Black tip of mango.
- ◆ Tobacco mosaic
- ◆ Yellow vein mosaic of bhindi
- ◆ Bean common mosaic
- ◆ Little leaf of brinjal

B.Sc. (Ag) 6th Semester, Course – III (D-696): Mushroom Cultivation

After completing this course the students will be able to understand:

- Morphology of edible mushrooms and their classification.
- Spawn and its preparation.
- Types of Spawn: Mother spawn and Commercial spawn
- Methods of Cultivation of different types of edible mushrooms
- Mushroom Diseases and their management
- Mushroom recipes

B.Sc. (Ag) 8th Semester, Course – IV : D-891 (J) - Rural Agricultural Work Experience (RAWE)
Plant Pathology

- Students have to be exposed to rural (Village) environment for strengthening practical training -group of students have been associated to farmers, agro-industrial units and agricultural research station for this purpose for a period of 3-4 months. They will be constantly supervised and evaluated by the faculty and a detailed report of the survey and works of the students for the period is to be submitted by him/her.