**Exercise # 2**

**BLIGHTS, SCORCH, SCALD AND BLAST**

Blight is general and extremely rapid browning and death of leaves, branches, twigs and floral organs. Scorch is burning of leaf margins or drying and death of whole leaves due to intensive heat or sunshine. Scald is appearance of depressed, necrotic, dark areas on the fruits. Blast is appearance of reddish-brown lesions with reddish to brown borders; these lesions enlarge, coalesce, and kill entire leaves and thus infected crop gives fiery look. Among these diseases, the most important are: gram blight (*Ascochyta rabiei*); early and late blight of potato (*Alternaria solani* and *Phytophthora infestans*); andrice blast (*Pyricularia oryzae*).

**Materials**

Samples of diseased leaves of gram blight,early and late blight of potato,and rice blight and blast.

**Procedure**

1. Examine the symptoms and draw their sketches on your practical manual.
2. Prepare cultures of *Ascochyta rabiei,Alternaria solani*, *Phytophthora infestans* and *Pyricularia oryzae*.
3. Prepare temporary mounts from the cultures of above mentioned fungi and study in detail the following structures.
4. Mycelium
5. Conidiophores
6. Sporangiophores
7. Sporangium
8. Conidia
9. Draw and label the diagrams of mycelium, conidiophores, sporangiophores, sporangium and conidia on your practical manual.

**Questions**

1. What is coenocytic hypha?

**Aseptate**

**Non-septate**

**Hypha without septation**

**No cross wall**

1. What is septation?

**Presence of cross walls**

1. What is difference between early and late blight of potato?

**In early blight**

**Bull' eye shaped symptoms appear on leaves, stem which are also known as target board effect**

**In late blight irregular necrosis occur followed by white mycelial growth on lower side of leaves**

1. What was the reason of Irish famine occurred in 1846?

**Potato Late Blight is the reason**

1. Does *Phytophthora* is true fungus?

No Phytophthora is an oomycete

Not a true fungus

1. Are blights caused by bacteria?

**Yes blights are caused by bacteria**

**Like**

**Bacterial Blight of Rice**