

# LATE BLIGHT OF POTATO -

Causal organism - Phytophthora infestans

→ The Mycelium of the fungus is endophytic consisting of Hyaline, Branched, coenocytic, intercellular Hyphae with haustoria.

→ This disease kills the Tops of Potato Plants & also involve the Tuber. It is the most destructive of all the disease of potato if conditions are favourable for its development.

## Symptoms -

(1) The first symptoms are the appearance of Brown spot or extended necrotic areas on the leaves

(2) Necrotic area soon turns to brownish Black lesions, enlarging rapidly under favourable weather.

(3) Lesions appear at the Tip or Margin of leaves and then spread downward or inward increasing in size.

(4) Generally leaves are attacked first & under moist weather blighted leaves killed within two to four days.

(5) Potato Tubers also become infected while they are in the field. First sign of Tuber infection is Brown to Purple discoloration of the skin followed by brownish dry rot.



# Disease cycle-

Infected Tubers are Main source of infection. The dormant Mycelium in the Tuber become Active & Grow upward in the stem.

- Then leaf become infected from sporangia produced by mycelium
- sporangiophore emerges through stomata of leaves, they are branched & produces sporangia that are pear shaped, Myaline & multinucleated.
- Low Temp favours zoospore formation from sporangia while High Temp favours germ tube development.
- zoospores lose their flagella, germinate & penetrate the host
- The spores blighted leaves are washed down into the soil where they infect the healthy tuber.
- Sexual reproduction is NOT very common in this fungi.

# Control of Disease

- (1) Spray of fungicides ex- Bordeaux Mixture, Blitox-50, Zineb, Maneb etc.
- (2) Infected leaves should be destroyed by spraying  $CuSO_4$ ,  $H_2SO_4$  on leaves.
- (3) Tubers with infection should be discarded.
- (4) Tubers should be stored in cool, dry & well aerated stores. Before storage tubers should be given dip in 1:1000  $HgCl_2$  solution.
- (5) Disease Resistant Varieties should be grown.

Awani Singh  
Tany department  
college Dumraon  
A Singh