ALTERNARIA

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Systematic Position

- Div : **Mycota**
- Sub-div. : **Eumycota**
- Class. : **Deuteromycetes**
- Order : **Moniliales**
- Family : **Dematiaceae**
- Genus : **Alternaria**

Occurrence

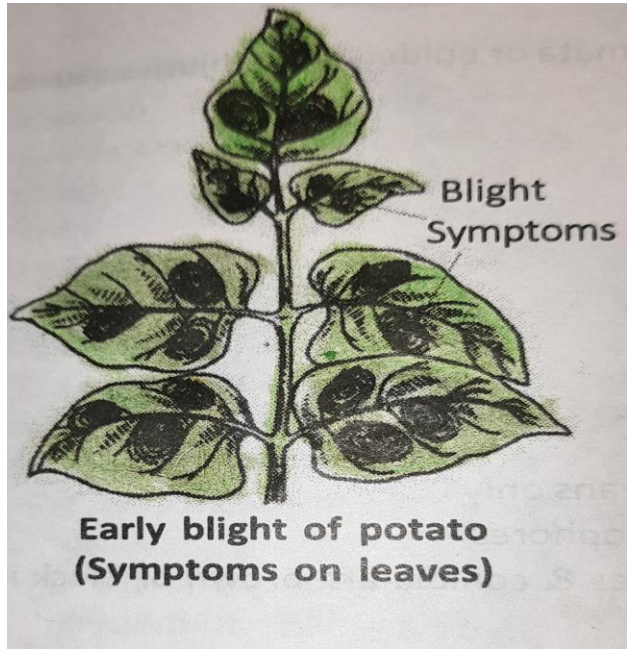
- Represented by about 50 species
- Worldwide distribution
- Most species are saprophyte
- Found in soil and in dead, decaying organic matter
- Some species are facultative parasite infecting large number of higher plants
- Most common species is ***Alternaria solani*** which causes **early blight disease in potato**

HOST AND DISEASES

Disease	**Host.**	***Alternaia* species**
• Early blight.	Potato (*Solanum tuberosum)*	*A.solani*
• Leaf spot.	Mustard, cabbage and cauliflower. (*Brassica spp*)	*A. brassicae and A. brassicicola*
• Leaf blight.	Wheat (*Triticum)*	*A. triticina*

SYMPTOMS

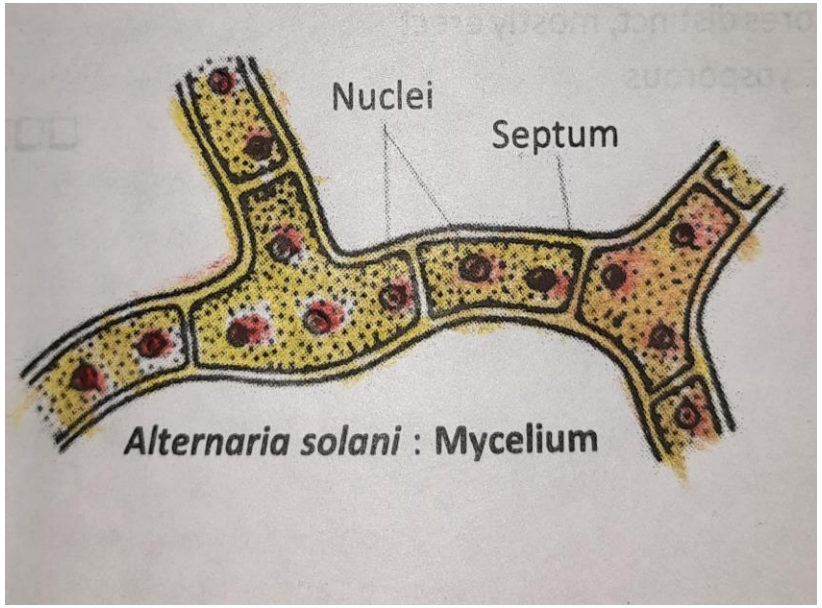
- Symptoms appear early in growing season
- Yellowish- brown spots on leaf
- Spots enlarge, become round and.
  develop concentric rings
- Spots appear like “target board”
- Later entire leaf gets covered with such spots
- Spots coalesce to form larger black or dark brown spots
- Under severe infection entire lamina, petroleum, stem and even tubers develop such necrotic spots



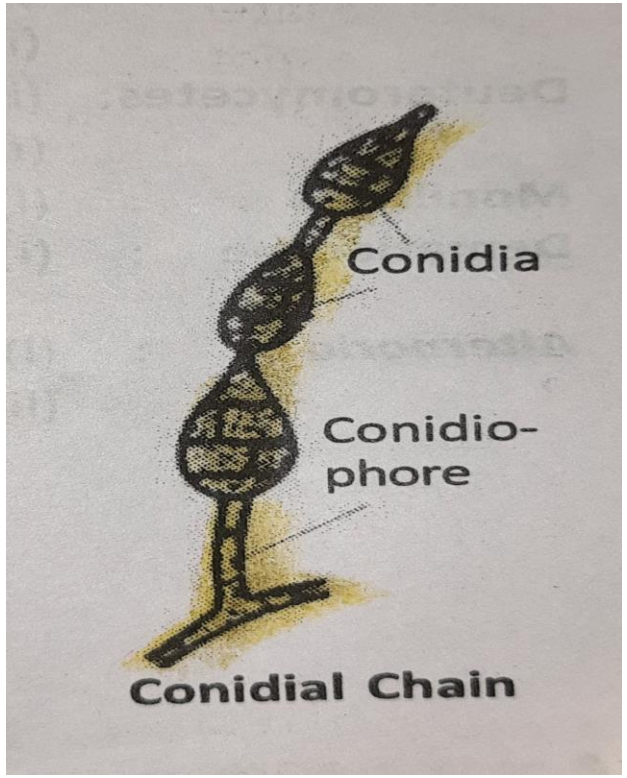
Early blight of potato
(Symptoms on leaves)

VEGETATIVE STRUCTURE (MYCELIUM)

- Mycelium intercellular as well as intracellular
- Hyphae initially intercellular but
. later invade host cells and become intracellular
- Mycelium is profusely branched, septate, multicellular and light brown in colour
- Haustoria are absent
- Each cell of hypha is usually multinucleate



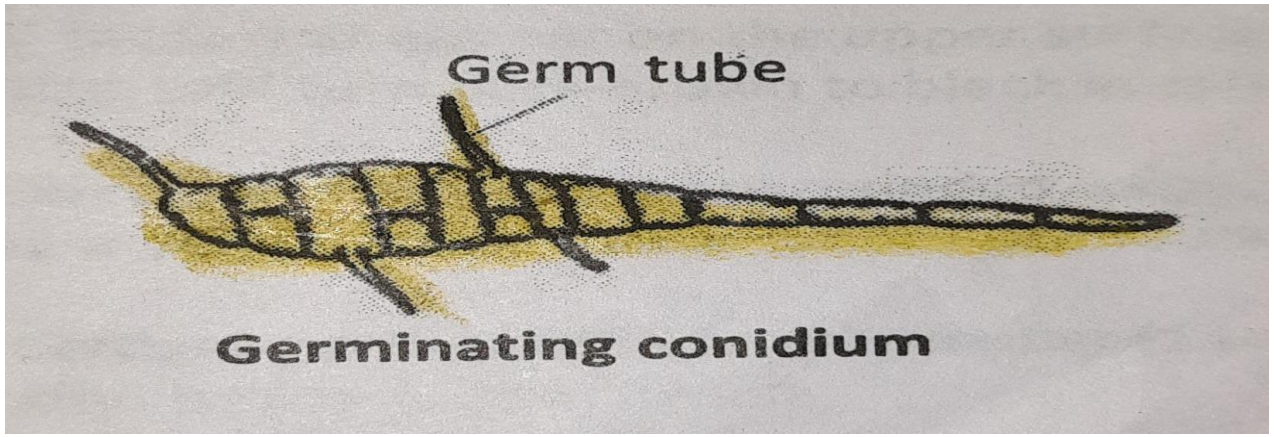
ASEXUAL REPRODUCTION



- Asexual reproduction occurs by conidia
- Conidia are produced at the tip of coniophores either singly or in chains
- Coniophores emerge through stomata or dead epidermal cells
- Coniophore are short, dark coloured, aerial, septate and slightly curved
- Conidia are long, bottle shaped, yellowish brown and beaked (muriform)
- Conidium is multicellular, obclavate and elliptical
- Conidia are disseminated by wind

GERMINATION

- Under favourable conditions conidia germinate by producing 5-10 germinate tubes
- Germ tube infect the host plant through stomata or epidermis or through lesions caused by insects.



THANKS

Get vaccinated

Wear mask

Wash hands

Maintain social distancing