

# DEUTEROMYCOTINA

## Alternaria

### Classification

Kingdom	Fungi
Division	Eumycota
Subdivision	Deuteromycotina
Class	Hyphomycetes
Order	Monillales
Family	Dematiaceae
Genus	<i>Alternaria</i>

The most commonly occurring disease of **potato early blight** is caused by *Alternaria solani*. The perfect stage of *Alternaria* belongs to Pleaspora infectoria of Loculoascomycets fungus. Early symptoms appear in the form of yellowish-brown spots on the leaves, which enlarge in size and become round to form the concentric rings. They appear like the 'target boards' and hence the symptoms are called target board effect. In severe infection entire lamina, petiole, stem and even tubers are badly damaged. Edible parts of the tuber turn brown.

### Habit

The mycelium is endophytic, profusely branched and septate. In parasitic species it is both inter—and intracellular, geniculate, light brown and without haustoria. Each cell of the hypha is usually multinucleate.

### Reproduction

*Alternaria* reproduces only by conidia which are produced at the tips of conidiophores. The conidiophores are short, dark coloured, aerial, septate structures and cannot be easily distinguished from the somatic hyphae. A conidium develops as an apical bud from the uppermost cell of the conidiophore. The young conidium first divides by transverse septa and some of its cells divide by longitudinal septa. Conidia with transverse and longitudinal septa are called 'muriform' or dictyospores. Conidiophore gives rise to one or two conidia exogenously at the tip, but in synthetic media chains of conidia may be

produced. Sometimes branching of the conidial chain is also observed. Any lower cell of the conidium produces a bud which develops into conidium.

A mature conidium is multicellular, obclavate, elliptical or beaked, and has transverse and longitudinal septa. It is surrounded by two layered wall of which the outer wall is pigmented and the inner wall is hyaline. The conidia are readily disseminated by wind.

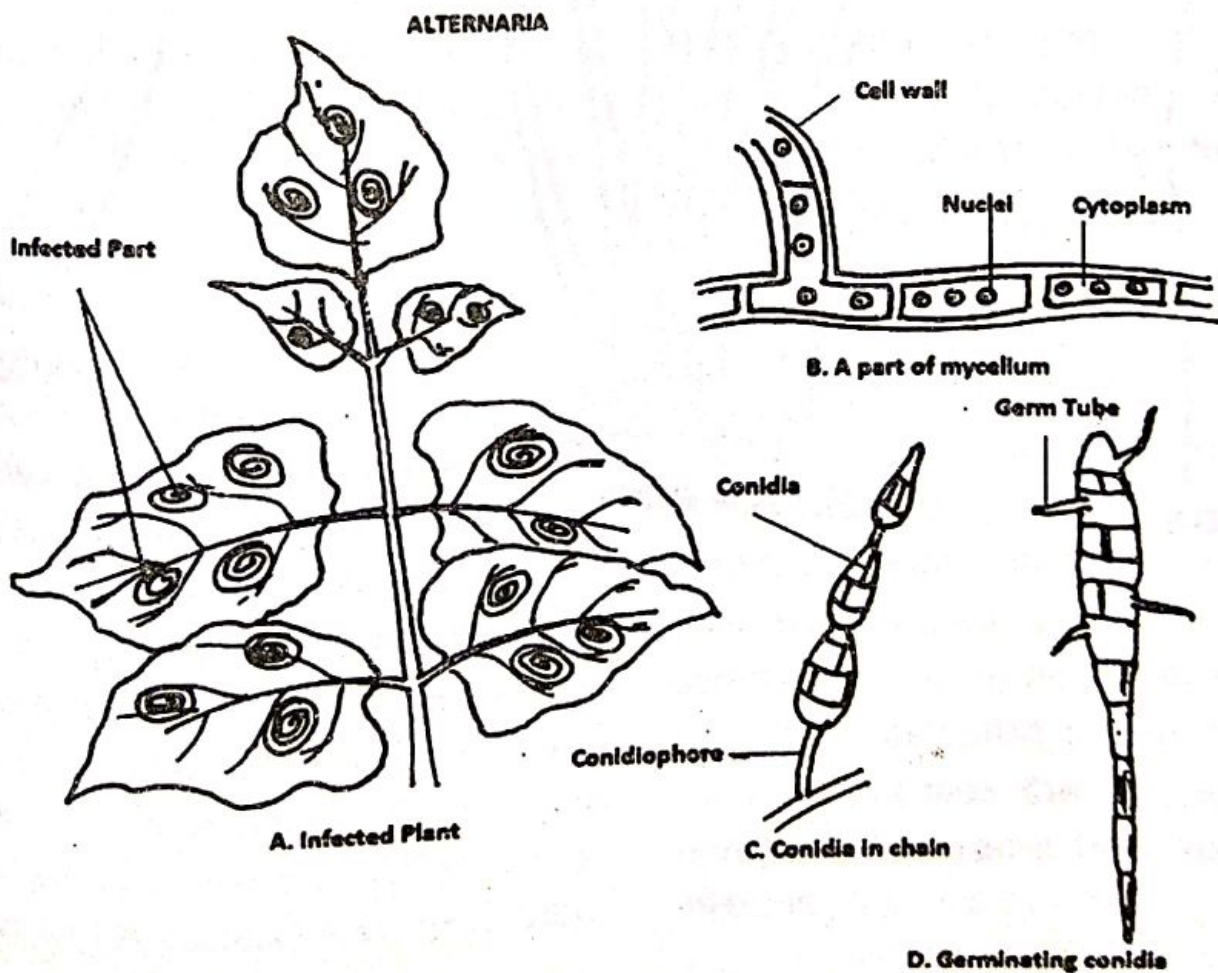
In the presence of moisture and suitable temperature each conidium germinates by producing 5-10 germ tubes at a time. The germ tubes infect the host plant through stomata or, epidermal cells or injuries caused by insects.

## Colletotrichum

### Classification

Kingdom	Fungi
Division	Eumycota
Subdivision	Deuteromycotina
Class	Colenomyces
Order	Melanoconiales
Family	Melanoconiaceae
Genus	<i>Colletotrichum</i>

*Colletotrichum* causes anthracnose diseases in plant. The perfect stage is known as *Glomerella tucumanensis*. *Colletotrichum fulcatum* in sugarcane causes red rot, which causes enormous loss of crop in India.



**Thallus**

Mycelium is branched and septate. Develop inter or intracellularly. The cytoplasm is dense contain oil droplets.

**Reproduction**

Sexual reproduction is not known and asexual reproduction takes place by

conidia formation. The fruiting body is plate like acervulus. The conidiophores are aseptate and unbranched. Special thing is that a single conidium develops on the tip of each conidiophore. The conidium is sickle shaped. Conidia are dispersed by rain or air. In humid environment they germinate to produce new mycelium.

