PEZIZA

Systematic position

Division	—	Eumycota
Subdivision	—	Ascomycotina
Class	—	Discomycetes
Order	—	Pezizales
Family	—	Pezizaceae
Genus	—	*Peziza*

Occurrence

Majority of *Peziza spp.* are saprophytes which grow on dung, decaying or burnt wood, or on richly manured soil during rainy season.

Peziza is commonly called cup-fungus due to presence of cup-shaped apothecia.

P. coccinia grows on decayed branches in woods on mineral rich soil.

Somatic parts

The mycelium is profusely branched. Its hyphae are septate and forms dense network. Cells are uninucleate or multinucleate. The perennial mycelium remains hidden in the substratum on which it is growing.

Asexual reproduction

Peziza reproduces asexually by the formation of **conidia** and **chlamydospores.**

Conidia are thin walled and develop exogenously on the tips of the specialized hyphae, called conidiophores. Each conidium germinates to form new mycelium.

Chlamydospores are thick-walled and intercalary. Germination of chlamydospore forms new mycelium.

Sexual reproduction

No definite sex organs (antheridia and ascogonia) are formed in a majority of the species, including P. *vesiculosus*.

The apothecia are formed either by somatogamy (copulation of the terminal cells of two different vegetative hyphae) or by autogamy (fusion of two nuclei of the same vegetative cell).

The fusion cell contains dikaryon. Ascogenous hyphae develop from fusion cell. The ascogenous hyphae are multicellular, and their cells are binucleate.

The terminal cell of each of the ascogenous hypha functions as an ascus mother cell.

Two nuclei of the ascus mother cell fuse to form a synkaryon. This diploid nucleus divides reductionally and then mitotically to form eight haploid nuclei, which get organized into eight ascospores.

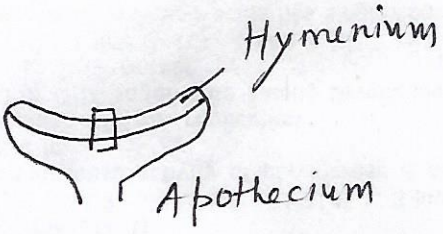
Many sterile hyphae are intermingled with the asci, called paraphyses. The ascospore is uninucleate.

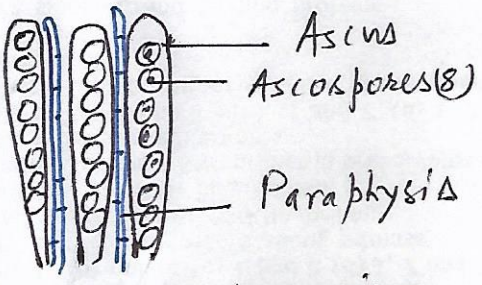
Mature ascocarp

The ascocarp is cup-shaped, which is called apothecium. It contains a short stipe and a cup shaped disc. The basal portion of the apothecium is called hypothecium. It is generally thick and fleshy. The outer layer of the hypothecium is called excipulum.

The asci and paraphyses are arranged perpendicular to the surface of the hymenium, and are almost parallel to each other. Each ascus contains eight ascospores. Each Ascospore germinates into a new mycelium.

Peziza : Apothecium





Part of hymenium