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# Peziza

- **Content-**
- Classification
- Introduction
- Mycelium
- Reproduction
- Life-cycle

# Peziza

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- **Classification**
- Division- Mycota
- Subdivision- Eumycotina
- Class – Ascomycetes
- Order – Pezizales
- Family – Pezizaceae
- Genus – Peziza
- Species – vesiculasa
- Peziza contains over 100 species. Peziza vesiculasa is a common species, occurs cosmopoliton.

- **Introduction** – Peziza is a **saprophytic**, very often coprophilous ( growing on dung ) in habit.
- It frequently grows on dung, rotting wood or rich humus( nutrient rich) of forest soil. Some species of this genus grow on burnt or charred wood.
- Peziza contains over 100 species. The species commonly found is Peziza vesiculasa. The species is considered **poisonous**. It is one of the larger **cup fungi** and is cosmopolitan in distribution . It produces a cup-shaped fruiting body or Ascocarp ( Apothecium ). Some common other Indian species are- *Peziza domiciliana*, *P. ampliata*, *P. arvernensis*, *P. badia*, *P. cerea*, *P. echinospora* etc.

# Peziza- Cup or Apothecium in nature 3



# Peziza- Cup or Apothecium in nature 4



## Peziza

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Mycelium- It is well developed, frequently perennial and consists of a dense network of hyphae.

- The hyphae are **branched** and **septate**. The cells are **uninucleate**. The **hyphae are hidden from view** as they ramify within the substratum (humus rich soil, dung, wood etc). They form a complex system which extracts nourishment from the substratum.
- The fruiting bodies(cup shaped) are above the ground and are easily visible. The fruiting bodies are also known as Ascocarp or Apothecium.

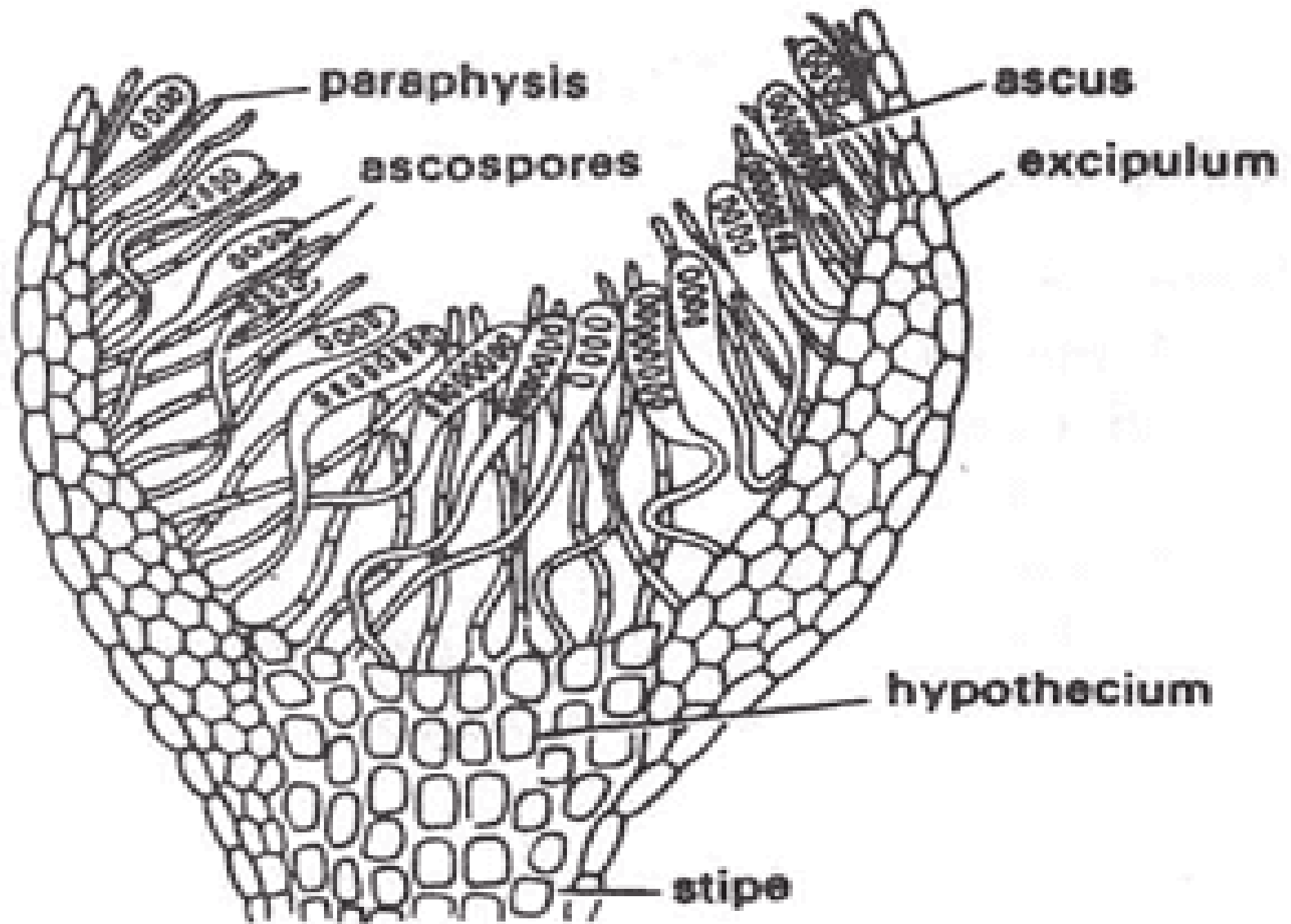
## **Peziza** **6** Reproduction- Asexual & Sexual Reproduction.

- **Asexual Reproduction-** It takes place by the formation of **Conidia** and **Chlamydospores**.
- The **conidia** are exogenously formed spores. They are abstricted at the tips of conidiophores. Each conidium germinates to form a new mycelium.
- The **chlamydospores** are thick –walled resting cells of the hyphae. Under suitable conditions each chlamydospore germinates to gives rise to a new mycelium.

- **Sexual Reproduction** – The sexual apparatus is wholly lacking in *P. vesiculosa*. The sexual process is extremely simplified.
- It consists in the association two vegetative nuclei to form a **dikaryon** by a somatogenous copulation between vegetative cells of adjacent hyphae or by autogamous pairing. Now the cells with dikaryons give rise to the **ascogenous hyphae**.
- They become septate and branched. Their cells are **binucleate**. The terminal binucleate cell of each Ascogenous- hyphae functions as an **Ascus mother cell**.
- The two nuclei of the ascus mother cell fuse to form the **synkaryon**. The young ascus with the synkaryon represents the transitory **diplophase**.
- The synkaryon undergoes two successive divisions- first is Meiosis division and second is Mitosis division forming **eight haploid nuclei**, which become organised into **Ascospores**.

# Peziza- sexual repdn. contd. 8

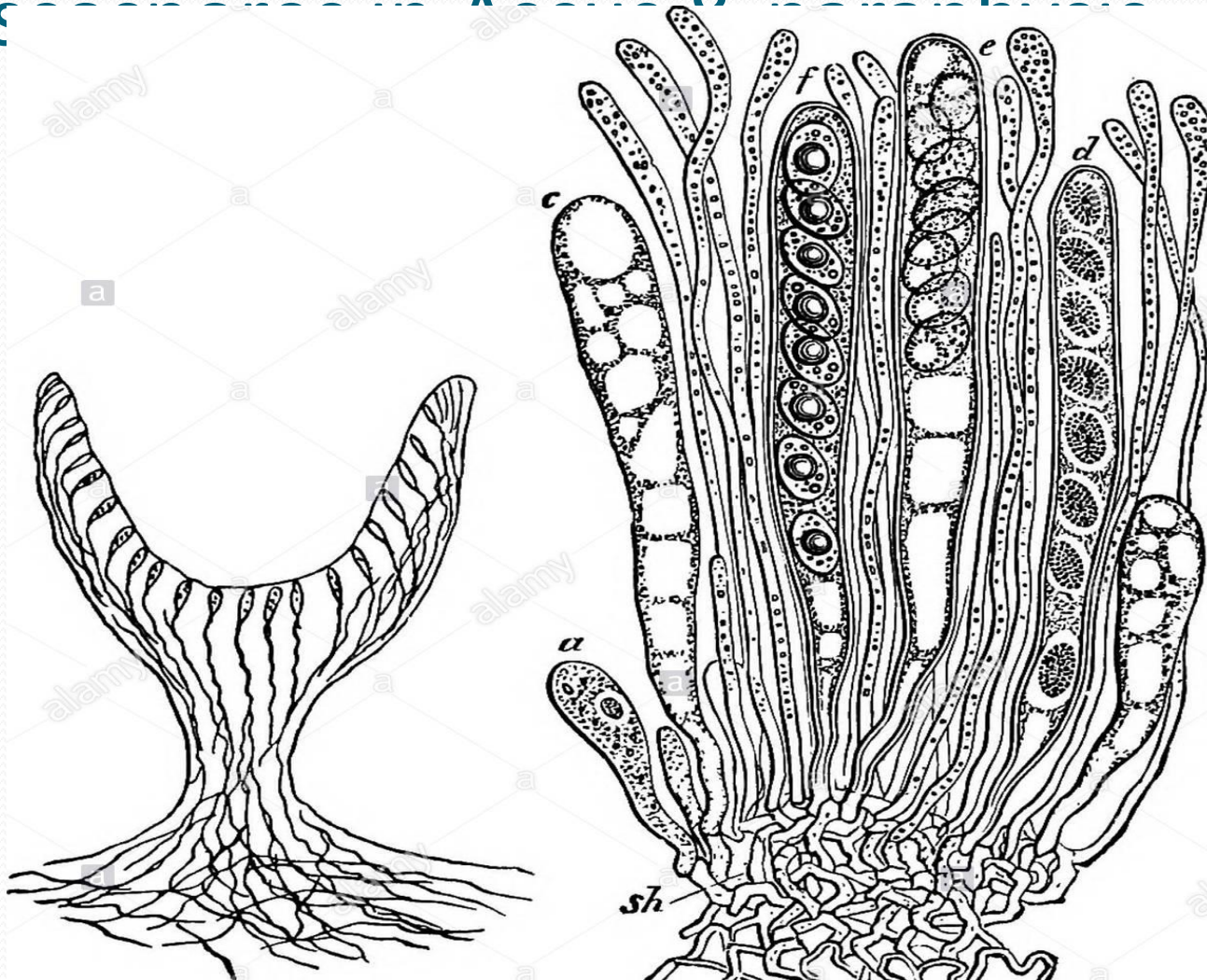
- The **mature Ascus** is an elongated, cylindrical cell. The ascus wall is lined by a thin layer of cytoplasm which encloses a central vacuole filled with sap. In vacuole lie the oval ascospores.
- The **erect asci** lie side by side lining the cavity of cup-shaped of **apothecium**. Interspersed between the asci are the sterile hyphae called **paraphyses**. The rest of the apothecium consists of densely interwoven, branched hyphae forming a pseudoparenchymatous tissue which supports the hymenium.
- The **fruiting bodies** or **Ascocarps** in peziza are large in size varying from 2 cm. to several inches in diameter, fleshy, red or orange, cup-shaped, epigean, sessile or sessile **apothecia**.
- Each Ascospore germinates into new mycelium.



**Fig. 90.** *Peziza*. V.S. of an apothecium.

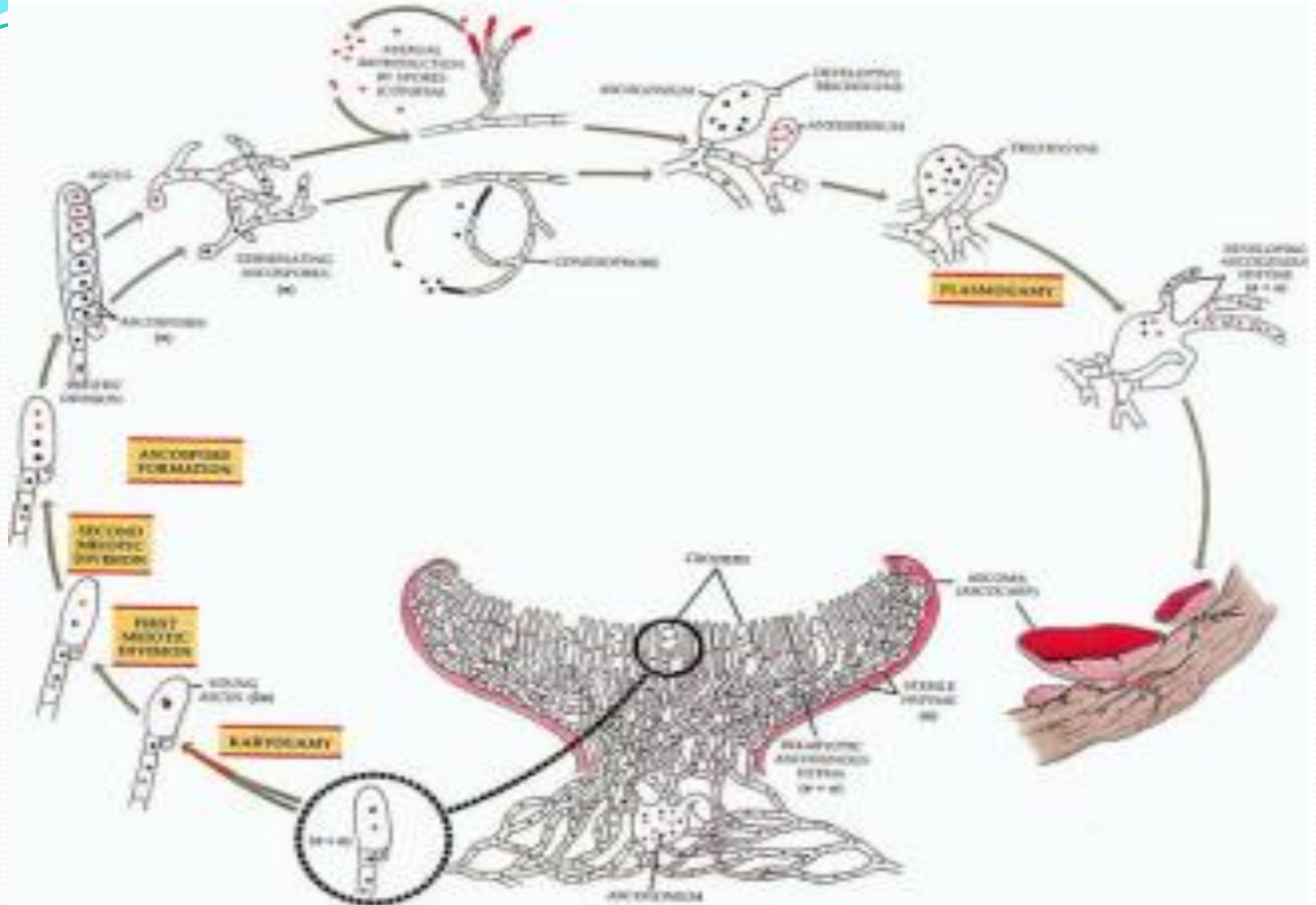
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# Sexual Repdn

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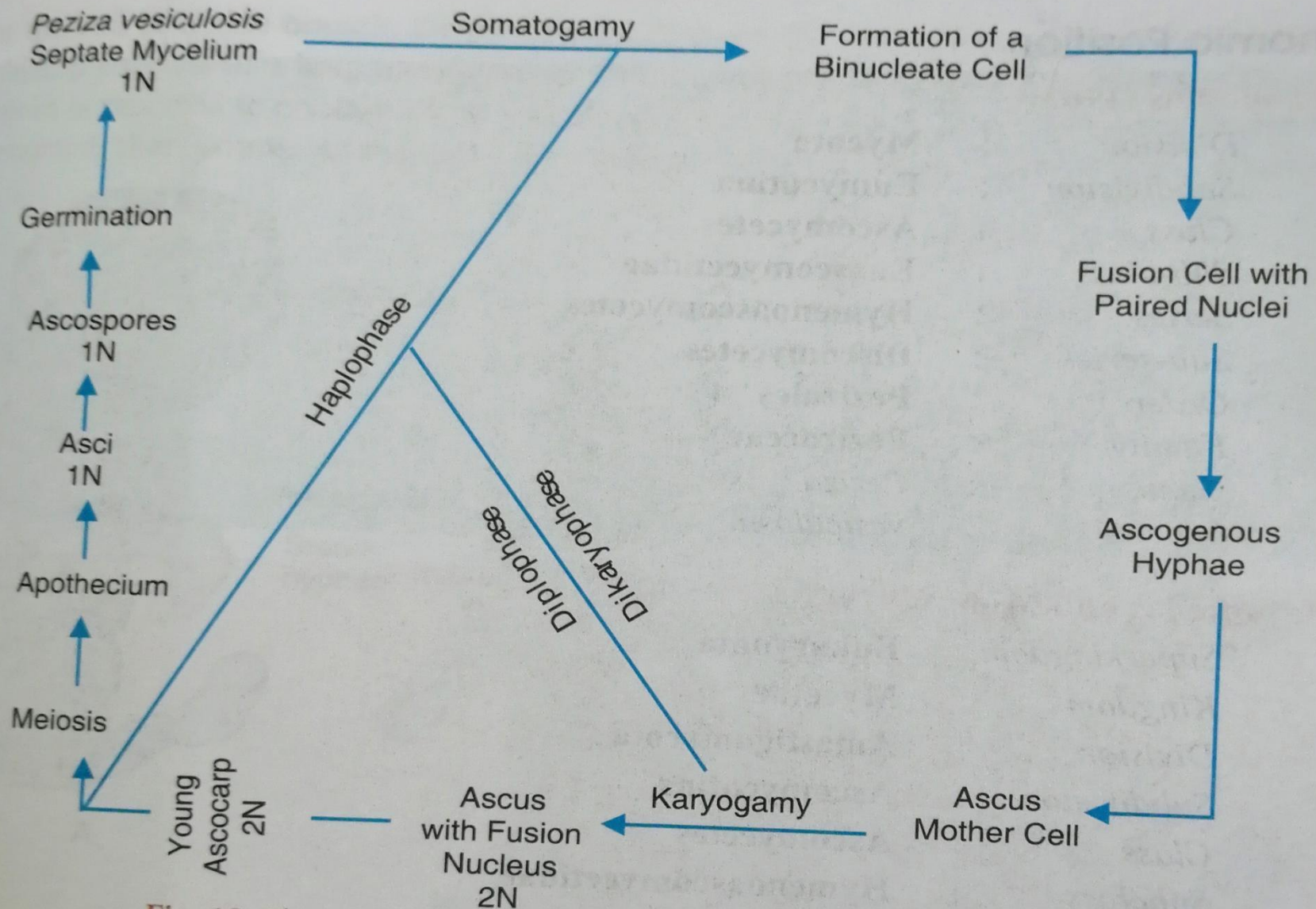


Fig. 12.14. Graphic representation of the life cycle of *Peziza*.



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THANK  
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