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Class : Deg. I (Subs.)

Chapter : Fungi

Topic : Peziza (Continued)

Lecture No. - 34

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Peziza : Sexual Reproduction

The sexual apparatus is wholly lacking in Peziza vesiculosa.

Sexual process does not take place.

It is extremely simplified and consists in the association of two vegetative nuclei to form a dikaryon by somatogamous copulation of adjacent hyphal or by autogamous pairing.

• Ascogenous hyphal axes from the dikaryotic cells.

They become septate and branched.

The cells are binucleate.

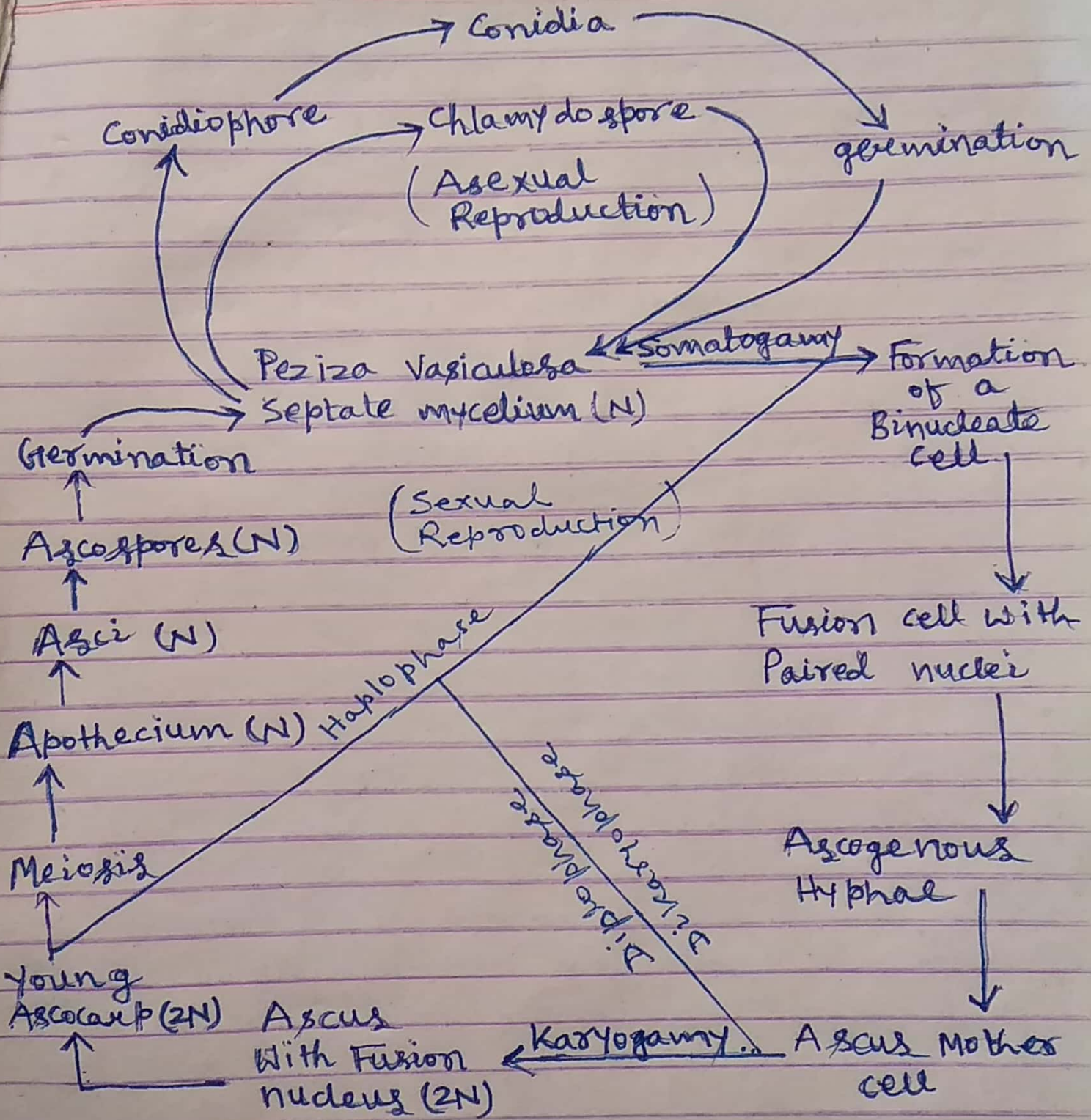
The terminal, binucleate cells of the ascogenous hyphal or their branches function as the axis mother cells.

Formation of croziers in the development of asciz has not been reported in peziza vesiculata.

The ascogenous hyphal and the dikaryotic cells from which they are developed and

the binucleate ascus mother cells constitute the dikaryophase in the life-cycle of Peziza.

- The two nuclei in the ascus mother cell fuse to form the zygokaryon.
- The young ascus with a zygokaryon represents the transitory diplophase.
- As the ascus cell advances towards ~~the~~ maturity, the zygokaryon undergoes three successive divisions. The first two constitutes meiosis.
- This results in the formation of eight haploid nuclei, which become organized into 8 ascospore in the mature ascus.
- Mature ascus is an elongated, cylindrical cell. The erect asci lie side by side lining the cavity of the cup-shaped apothecium.
- Interspersed between the asci are the sterile hyphae called paraphyses.
- Rest of the apothecium consists of densely interwoven, branched hyphae forming a pseudoparenchymatous tissue.
- The apothecia are sessile or shortly stalked cup-shaped structure.
- The ascocarp in Peziza are large, fleshy, red to orange, cup-shaped epigean, sessile or sub-sessile apothecia.



(Fig: Graphic life-cycle of Peziza)