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Dept. of Botany

Class : Deg-I (Hons.)

Paper : I (Group-'A')

Chapter : Chlorophyceae (Chara)

Topic : Fertilization in Chara

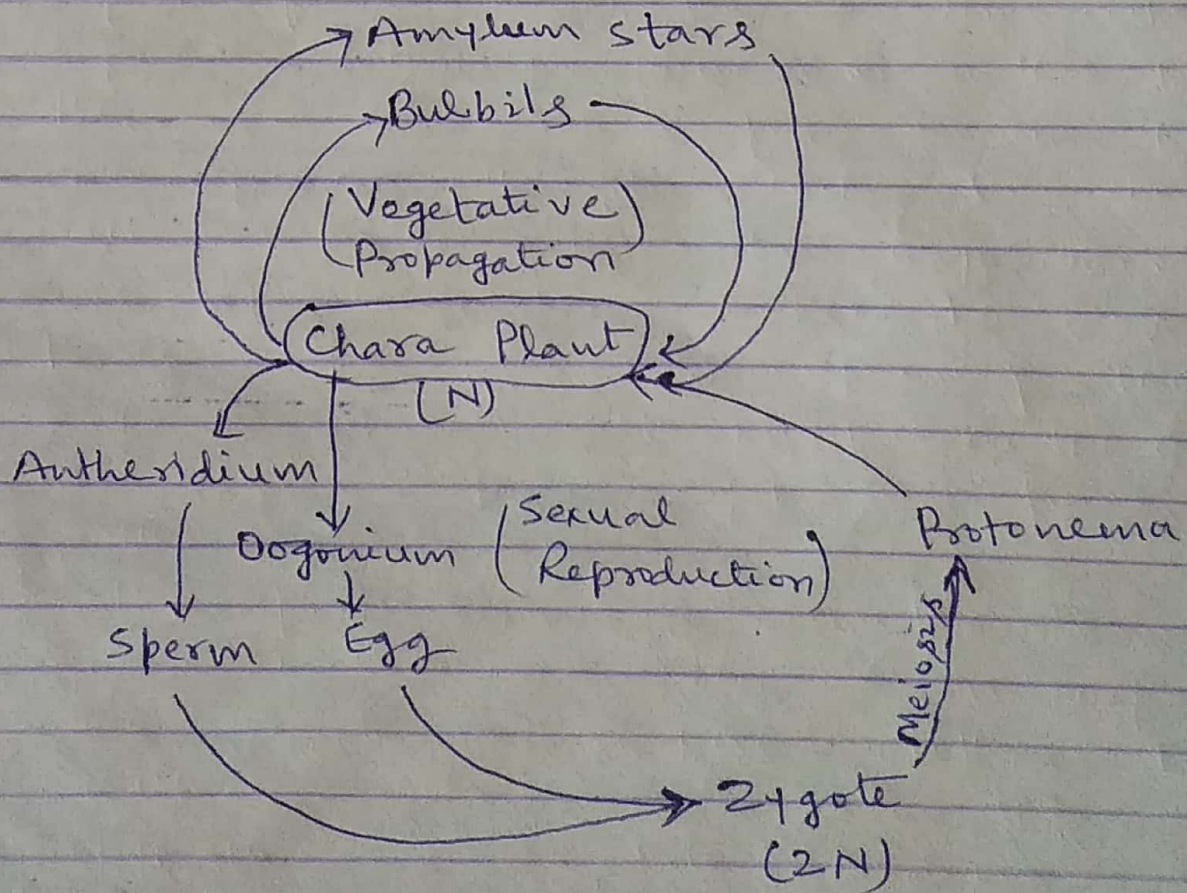
Lecture No. - 44

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Fertilization in Chara :

- Before fertilisation, the sheath cells separate slightly from one another below the corona. Thus five narrow slits are formed through which the sperms gain entrance into the oogonium.
- One of the sperm makes its way through the gelatinised apex of the oogonial wall. It penetrates the ovum at the receptive spot and fuses with egg nucleus.
- The fertilised egg secretes a thick-wall and becomes an oospore.
- The zygote or oospore clothes itself with a thick wall and the oogonium as a whole hardens.

- The zygote germinates after a period of rest.
- The zygote nucleus undergoes reduction division, forming four haploid nuclei, three of which degenerate.
- On germination, the zygote gives rise to a shizoid and a green filament protonema.
- The shoot of the chara plant arises from the protonema as a lateral bud.
- The vegetative cells of the chara plant are haploid, with 28 chromosome, while zygote or oospore is diploid.



(Fig : Graphic representation of life-cycle of chara)
(Complete.)