

REPRODUCTION IN FUNGI AND FUNGAL LIKE ORGANISMS CAUSING PLANT DISEASES

II, Asexual Reproduction

- It occurs through internally or externally produced spores which also act as agents of dissemination, survival and infection.
- In *Straminopila* (*Oomycota*) and some *Fungi* (*Zygomycota*), asexual spores are produced endogenously inside a sac like structure called **sporangium** and are released either by rupture of sporangial wall or through a pore or opening in its wall.
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- They are either motile with one or two flagella called **zoospores** or non-motile **aplanospores**.
- Sporangia are formed on specialized hyphal branches called **sporangiophores**.
- **Conidia** are another type of asexual spores which are cut off terminally or laterally from specialized hyphal branches called **conidiophores**.
- Conidiophores may be unbranched or may branch variously, both monopodially or sympodially and conidia are produced singly or serially in chains on these branches.
- While conidiophores of most fungi remain free, in some they appear to be aggregated and often compactly arranged to form a variety of characteristic structures such as **coremia**, **synnema**, **sporodochia**, **acervuli** and **pycnidia**. These are primarily designed to provide large number of spores within a small space available to the fungus.
- The locomotory appendages or flagella of zoospores are of two types, i.e. whiplash and tinsel.
- The whiplash flagella are much thinner at the tip.

- The tinsel type flagella, which are found only in the members of kingdom *Straminopila (Oomycota)* have large number of small hair like outgrowths called **mastigonemes** or **flimmers** on their entire length.