

ERYSIPHE

Q. Give an illustrated account of the life history of ERYSIPHE with its economic importance and control.

Ans - Systematic Position →

Class - Ascomycetes
Sub class - Euascomycetes
Order - Erysiphales
Family - Erysiphaceae
Genus - Erysiphe
Species - Polygoni

Occurrence & structure of the Thallus →

Erysiphe polygoni is an obligate, ectoparasite of pea plant is responsible for producing the powdery mildew disease. On the upper surface of older leaves are covered by a powder like structure which is whitish or reddish brown in colour. Other plants suffering from this disease are Turnip, Cucurbita and Ladish finger. Leaves may be reduced in size turn yellow and shed. Pods are also attacked which may be shrivelled and dried. It occurs every year by the end of December and January.

The mycelium are colourless, soft, branches and web like septed with monocarpotic cells. They obtain organic food from the epidermal host cell by club shaped ~~haustoria~~ haustoria and they also fix the *Erysiphe* thallus with the surface of the host tissue.

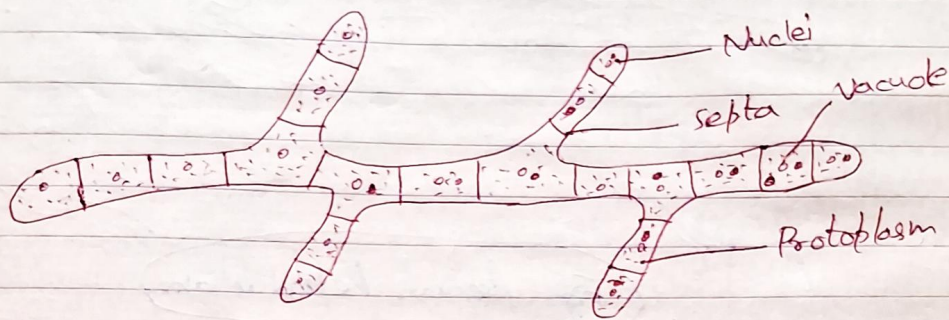


Fig - Mycelium of Erysiphe

Reproduction → It reproduces by two methods

1. Asexual - Reproduction → Under favourable condition Erysiphe reproduces asexually by conidia. Conidium arises from the club shaped, monocaryotic, hyaline conidiophore which erect from the thallus. The tip of the erect conidiophore on account of the budding produces a simple chain of several conidia. Each conidia is unicellular, cylindrical, hyaline, uninucleate and smooth walled. Large number of conidia are produced and detached by wind and these conidia fall on a suitable host and they directly germinate and form germ tubes. That germ tube enters through the stomata on host cell and spread new infection on healthy plants.

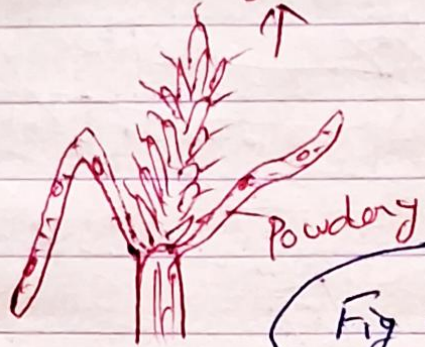
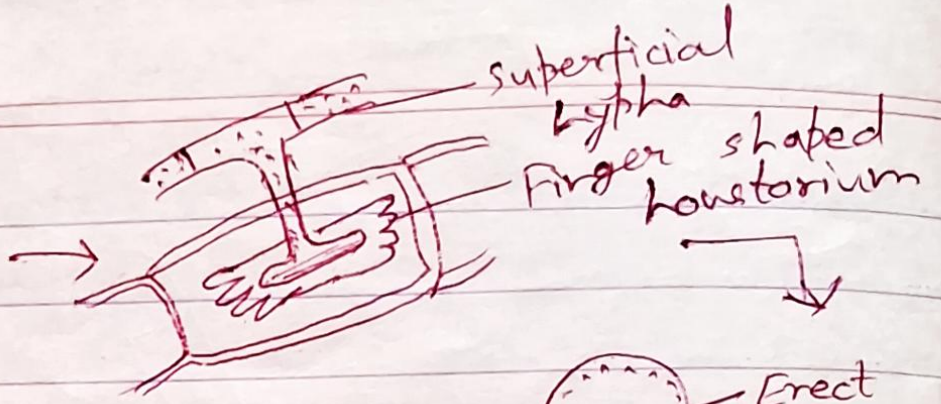
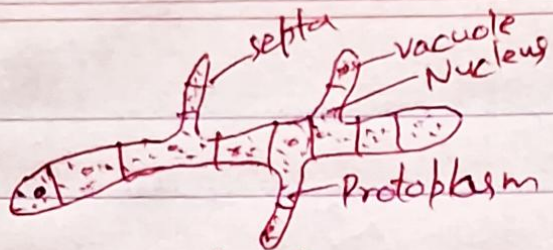


Fig - Asexual Reproduction

