

Vidya Bhawan Balika Vidyapeeth Lakhisarai

Arun Kumar Gupta

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Subject Biology

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Sexual Reproduction in Flowering Plants

MATURE POLLEN

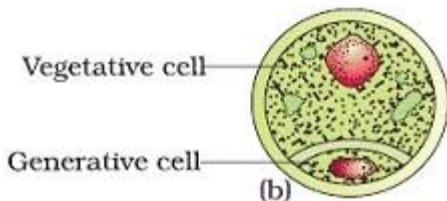
— A mature pollen consist of 2 cells with nucleus (Vegetative and Generative)

VEGETATIVE CELL

- Bigger
- Abundant food reserve
- Large irregular nucleus
- Responsible for the development of pollen grain

GENERATIVE CELL

- Small
- Involves in syngamy (fuse with an egg)
- Dense cytoplasm and nucleus



- Pollen grains of many species e.g Parthenium cause severe allergies and bronchial diseases in some people and leads to chronic respiratory disorders— asthma, bronchitis, etc.

- Pollen grains are rich in nutrients and are used as pollen tablets as food supplements.
- Viability of pollen grain varies with species to species and should land on stigma before this period to germinate. Pollen grains of large number of species are stored in liquid nitrogen at temperature – 196°, called pollen bank.

The Pistil, Megasporangium (Ovule) and Embryo sac

- Gynoecium may consist of single pistil (monocarpellary) or more than one pistil (polycarpellary) which may be fused (syncarpous) or free (apocarpous).

e.g Multicarpellary and syncarpous pistil- Papaver

Multicarpellary and apocarpous pistil- Michelia

- Each pistil has three parts the **stigma, style and ovary**. Inside the ovary is ovarian cavity (locule). The placenta is located inside the ovarian cavity. Megasporangia (ovules) arise from placenta.