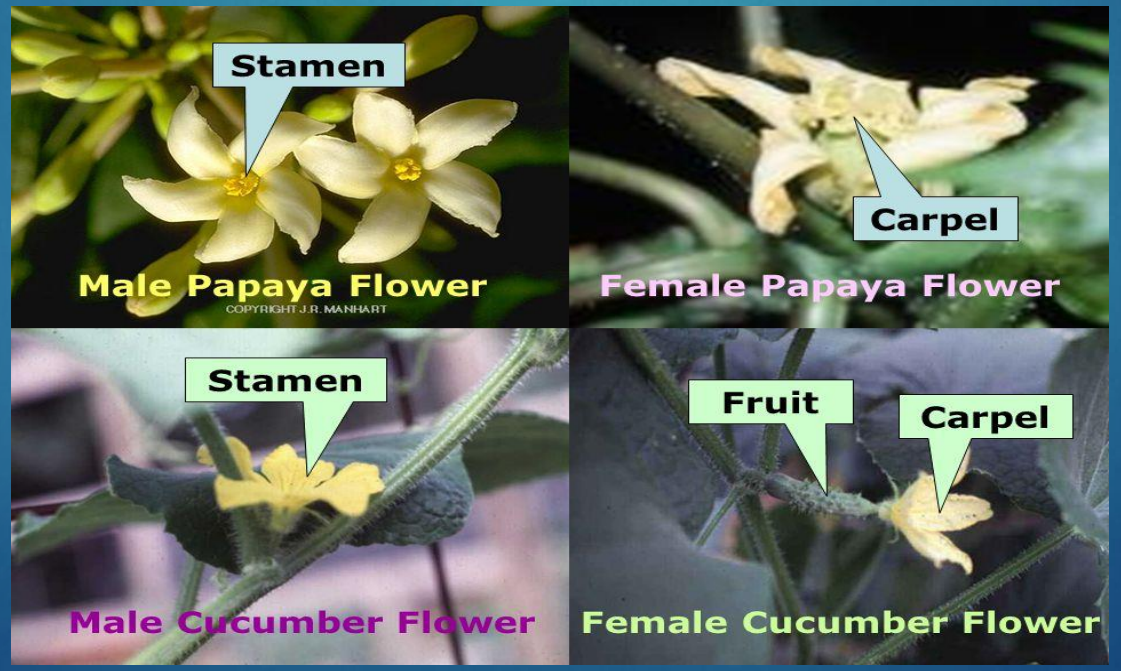
SEXUAL REPRODUCTION IN PLANTS

TYPES OF FLOWERS

1. UNISEXUAL FLOWERS- FLOWERS which contain either stamen or pistil eg: papaya
2. BISEXUAL FLOWERS- flowers which contain both stamen and pistil Eg: mustard, china rose etc.



POLLINATION

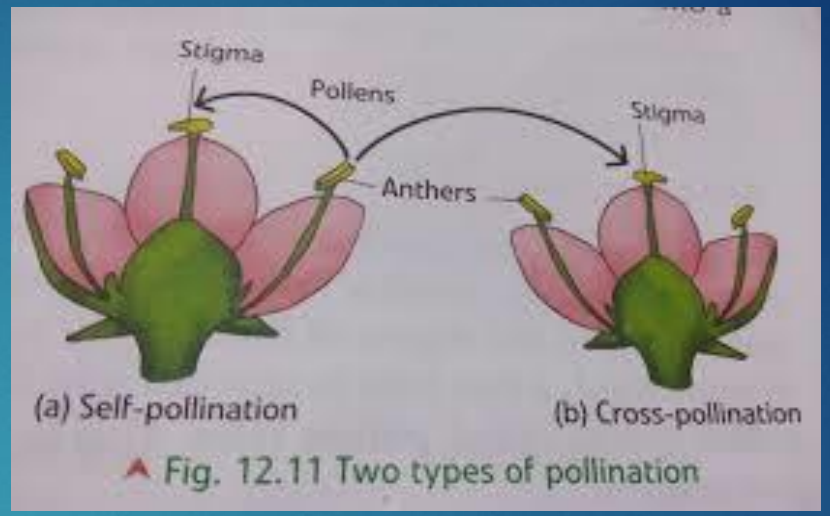


Fig. 12.11 Two types of pollination

- Pollination- it is the transfer of pollen grain from anther to stigma of a flower.
- It is of two types-
- A) self pollination- Transfer of pollen grain from anther to stigma of same flower.
- B) cross pollination- transfer of pollen grain from anther to stigma of a different flower (of same kind)

FERTILISATION

After pollination pollen grain lands on stigma and a pollen tube germinates from pollen grain. Pollen tube(carrying male gamete) penetrates through the stigma and travels down through the style to reach ovary where male and female gametes fuse with each other to form a zygote which develops into an embryo(baby plant)

POST FERTILISATION CHANGES

- petals, sepals, stamen etc, shrivel and fall off
- Zygote divides several times to form an embryo withi
- Ovule develops a tough coat and converts into seed
- Ovary ripens to become a fruit.

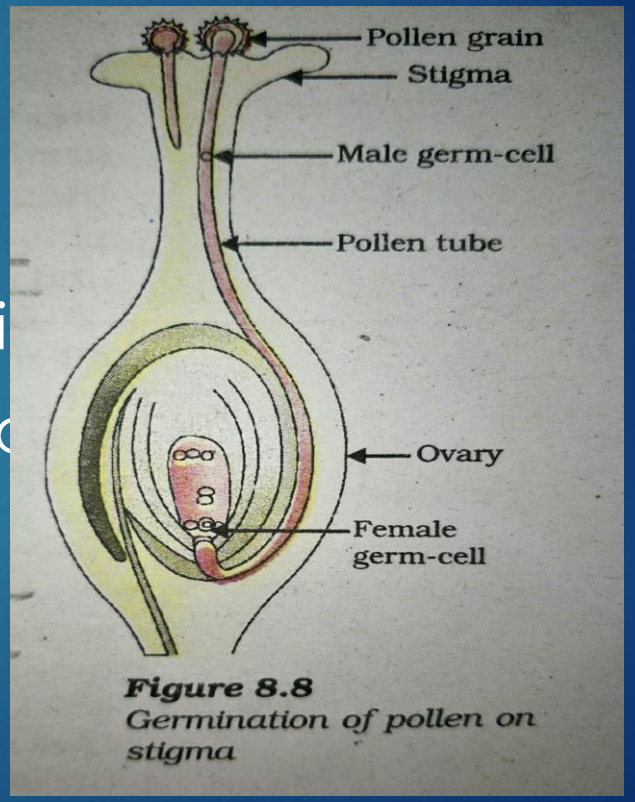


Figure 8.8
Germination of pollen on stigma

SEED

It contains a future plant or embryo which develops into a seedling under appropriate conditions and this is known as germination.

A dicot seed has two cotyledons which store food and a thick seed coat.

NOTE- embryo inside the seed has embryo axis. The upper part of this is known as plumule or future shoot and the lower part is radicle or future root.

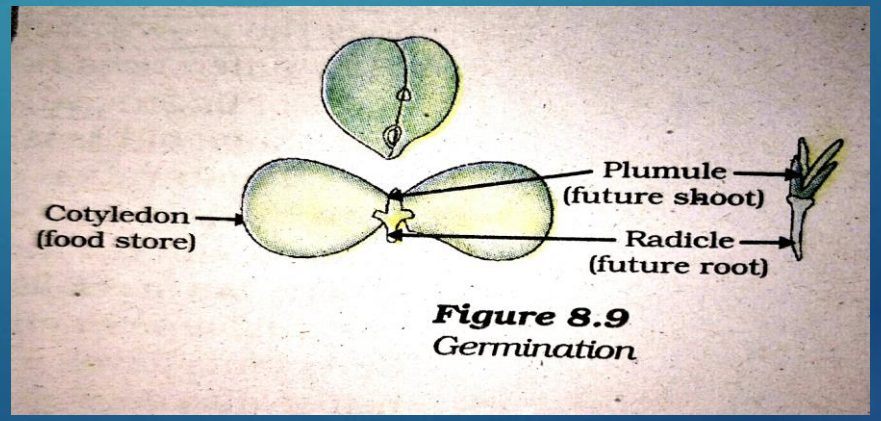


Figure 8.9
Germination

THANK YOU