

Fertilization

is the process by which the male mature pollen grain makes contact with the female ovaries of the flower, resulting in the growth of fruit and seed for the next generation of plants.

The stigma of the flower is moist and sticky, and is receptive only to pollen of its own species. The pollen grain attaches to the stigma and the moisture causes it to germinate. A pollen tube then grows down the style to make contact with an ovary. A fertile seed is formed comprised of an embryo and store of food (the endosperm) for the future plant.

For the above to occur the conditions must be right. Firstly, pollinators must be available in numbers to distribute the pollen. Secondly the flower must be receptive to the pollen – correct soil condition and moisture, temperature and humidity are all factors. For instance in extreme heat and low humidity, the pollen grain may fail to germinate.

This is a factor in failure of crops grown out of season and out of their climatic zone.

TRANSFER OF POLLEN

