

Pollination LR

Pollination. Objective, to understand the process of pollination. Flowers are the most attractive part of a plant.

Insects like butterflies and honeybees get attracted to the bright colors of flowers. They come to the flowers to collect nectar. When a bee lands on a flower, it comes in contact with the anther of the stamen.

The anthers produce very small, dust-like particles known as pollen grains, which contain male reproductive cells. The pollen grains get stuck to the bee's body. When the bee flies to another flower, the pollen gets transferred to the top-most part of the female reproductive part of that flower, which is known as stigma.

This process of transfer of pollen grains from the anther to the stigma of a flower is known as pollination. Here, as the pollen grains got transferred by the insect, it is known as insect pollination. Some plants commonly pollinated by insects are those of the watermelon, hibiscus, and mustard.

However, in a plant such as corn, the anthers, which contain the pollen grains having male reproductive cells of the flower, and the pistil, which contains the female reproductive cells remain exposed, as the petals are either very small or absent. Therefore, whenever the wind blows, it carries the pollen grains with it from the anthers to the nearby stigma, leading to pollination. In this case, as the pollen grains got transferred by the wind, it is known as wind pollination.

Grass and wheat plants also get pollinated with the help of wind. During pollination, when the pollen grains get transferred from the anther of the stamen of a flower to the stigma of the same flower, it is called self-pollination. When the pollen grains get transferred from the anther of the stamen to the stigma of another flower of the same kind, it is known as cross-pollination.

Thus, we can say that pollination is the first step in the process of reproduction in flowering plants, as it brings the male cell to the female reproductive part of the flower. To summarize, the process of the transfer of pollen grains from the anther to the stigma of a flower is called pollination. Wind and different types of insects are some agents of pollination.

When the pollen from the anthers fall on the stigma of the same flower, it is called self-pollination. When the pollen falls on the stigma of another flower of the same kind, it is called cross-pollination.

Summary:

Pollination is the process of transferring **pollen grains** from the **anther (male part)** to the **stigma (female part)** of a flower. It is the **first step in the reproduction of flowering plants**.

1. **How Does Pollination Happen?**

- **Insect Pollination:** Insects like **bees and butterflies** visit flowers for nectar. **Pollen grains** stick to their bodies and get transferred to another flower when they land on it.
- **Wind Pollination:** Some plants like **corn, grass, and wheat** have **small or no petals**, so **wind** carries pollen grains from one flower to another.

2. **Types of Pollination**

- **Self-Pollination:** Pollen from the anther falls on the stigma of the **same flower**.
- **Cross-Pollination:** Pollen is transferred from one flower to **another flower of the same kind**.

Quiz: Pollination

1. **What is pollination?**

- ☒ a) The transfer of pollen from anther to stigma
- ☐ b) The growth of a new plant from a seed
- ☐ c) The falling of leaves in autumn
- ☐ d) The process of making food in plants

2. **How does wind pollination occur?**

- ☒ a) Wind carries pollen from one flower to another
- ☐ b) Insects pick up pollen and transfer it
- ☐ c) Pollen is dissolved in water and absorbed by plants
- ☐ d) Pollen grains grow into new plants directly

3. **What is self-pollination?**

- ☒ a) Pollen from the anther falls on the stigma of the same flower
- ☐ b) Pollen is carried by insects to another flower
- ☐ c) Pollen is washed away by rain
- ☐ d) Pollen from one species pollinates another species

4. **Which of the following is an example of insect pollination?**

- ☒ a) Hibiscus

- ☒ b) Corn
- ☒ c) Wheat
- ☒ d) Grass