

Adaptation in Terrestrial Plants

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Terrestrial Plants

Plants that grow on land are called terrestrial plants.

Depending on the different terrestrial habitats, terrestrial plants can be classified into five main groups:

1. Plants in plains with less rainfall
2. Plants in plains with heavy rainfall
3. Plants in mountains
4. Plants in deserts
5. Plants in coastal areas

1. Plants in Plains

Plains are large, flat land areas and have different climatic conditions.

A. Plants in Plains with Less Rainfall

Some plains have very hot weather and receive limited rainfall.

Adaptations:

- Trees have many branches.
- Most trees shed their leaves during autumn and are called deciduous trees.

Examples: Mango, Banyan, Neem, Peepal, Gulmohar.

B. Plants in Plains with Heavy Rainfall

These regions receive a lot of rainfall and have hot and damp weather.

Adaptations:

- Trees have drip tips and waxy surfaces on leaves to shed excess water.
- There is abundant plant growth, and some plants grow on top of others to reach sunlight.
- Most trees remain green throughout the year and are called evergreen trees.

Examples: Rubber, Coconut, Teak.



2. Plants in Mountains

Mountain regions are generally colder than plains.

Adaptations:

- Trees grow tall and straight and are usually cone-shaped, allowing snow to slide off their branches.
- Leaves are small and needle-like to minimize water loss.
- Trees bear cones with seeds instead of flowers, preventing damage from snow.

Examples: Fir, Pine, Cedar, Mosses, Ferns.

3. Plants in Deserts

Deserts receive very little rainfall, and plants must survive with minimal water.

Adaptations:

- Small leaves and spines help conserve water.
- Leaves have a thick waxy coating to retain moisture.
- Some plants are leafless and store water in their green stems, which help in photosynthesis.
- Roots are close to the soil surface to quickly absorb water before it evaporates.

Examples: Cactus, Joshua Tree, Date Palm, Keekar.

4. Plants in Saline Coastal Areas

Coastal areas have salty soil and rocky or sandy terrain, making it difficult for roots to grow.

Adaptations:

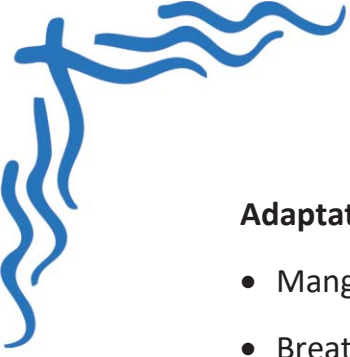
- Trees have deep roots and strong, flexible stems to withstand strong winds.
- Leaves are thick and long, forming many stripes to tolerate wind.
- Fruits and seeds dispersed by seawater to far-off places.

Example: Coconut tree are

5. Plants in Marshes

Marshy regions have sticky, clayey soil that holds a lot of water and has very little air.

Trees growing in these areas are called mangroves.



Adaptations:

- Mangrove trees have breathing roots that grow above the soil.
- Breathing roots help absorb water and minerals for photosynthesis.

Examples: Rhizophora, Avicennia.