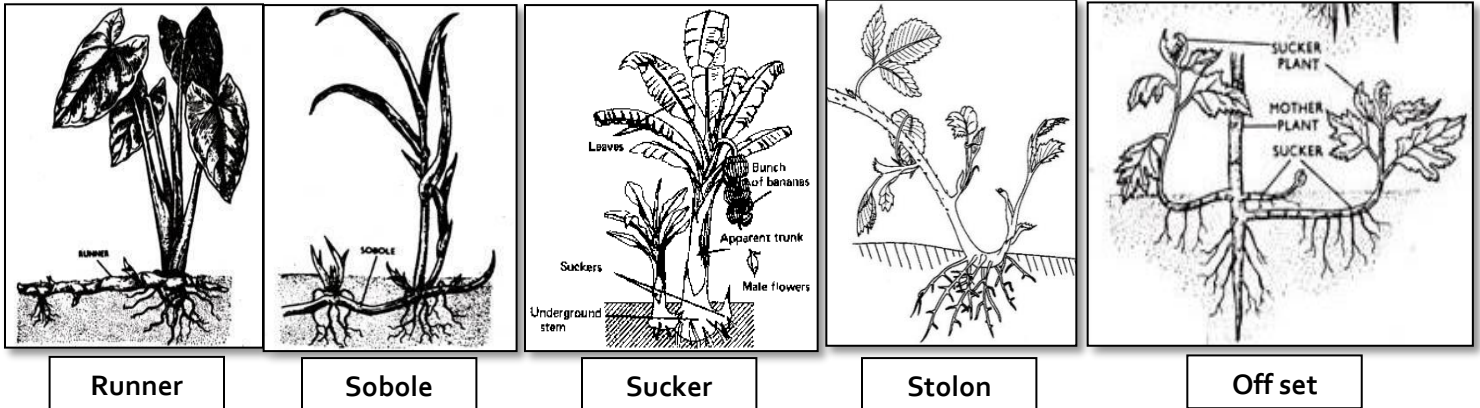


- Originates from leaf axil, grows as a short horizontal branch.
- Produces a rosette of leaves above and adventitious roots below.
- Commonly aquatic, some examples are Pistia (water lettuce), Eichornia (water hyacinth), Houseleek etc.



3. AERIAL MODIFICATION OF STEM

- ✓ Used in climbing, protection, and food storage

A. TENDRILS

- Its branches get modified into green thread like leafless structures called tendrils which are meant for climbing.
- May be branched or un-branched.
- A scale leaf is always present at the point of branching of the tendrils.

B. THORNS

- Straight, pointed, hard or woody structures sometimes they bear leaves, flowers or even may be branched.
- Citrus, Duranta and Aegle, thorns are modified axillary buds
- In Carissa (Dr. Khirkoli) terminal bud gets modified into thorns.
- Thorns are used as organs of defence or climbing (e.g. Bougainvillea) and check transpiration.

C. PHYLLOCLADE

- Fleshy, green flattened or cylindrical branches of unlimited growth.
- The leaves are modified into spines or scales to check transpiration.
- Common in xerophytic plants like Opuntia, Euphorbia, Casuarina, Cocoloba etc.

D. CLADODE

- Green, cylindrical or flattened leaf-like branch of limited growth.
- May be one internode long (Asparagus) or two internode long (Ruscus)

E. BULBIL

- Modified vegetative or floral buds with stored food and meant for vegetative propagation.
- In Dioscorea, bulbils are condensed axillary buds while in Agave and lily the floral buds develop into bulbil. (They detach and become new plant).

