MODIFIED PLANT PARTS FOR PROPAGATION

- Propagation refers to the multiplication or perpetuation of individual or group of plants which have specific value to human kind.
- Propagation through specialized structures is probably the simplest and easiest method. In certain horticultural crops, the plants possess some special vegetative structures which store food and used for propagation.
- These are modified plant part which may be stem or root or some other part.

Bulb:

- It is an underground part. It has short, fleshy vertical stem axis which bears growing point at its apex or flower primordium enclosed by scales. The outer scales are fleshy and contain food materials whereas; the scales towards the inner portion contain less food.
- Bulbs having dry and membranous outer scale are called as 'tunicate bulb' (eg. Onion, Garlic, Tulip) and bulb which lack this cover is known as 'non-tunicate bulb' (eg. Lily). Tunicate bulbs are protected by outer scale and non-tunicate bulbs are easily damaged





Corm:

It is a swollen solid specialized underground structure which posses **distinct node and internodes**. It remains enclosed by dry, scale like leaves. Ex.: Colocasia, Gladiolus and Saffron.



Rhizome:

It is a specialized stem structure which grows horizontally at or just below the ground surface. It bears nodes and internodes. Rhizome is very common in monocotyledonous plants such as Ginger, Turmeric, Banana and Iris.



Tuber:

A tuber is a specialized swollen underground stem which possesses eyes in regular order over the surface. The eye represents the nodes of the tuber and the nodes are arranged spirally in tuber. It is common in Potato, Dioscorea and Caladium.



Tuberous roots:

Tuberous roots are thickened tuberous growths that function as storage organ. Tuberous roots are found in Sweet potato, Cassava, Dahlia.







Runner :

It is a thin and long stem which develops from the axil of leaves, grows horizontally along the ground and forms a new plant at the nodes where it comes in contact of soil. Eg.: Strawberry and Mint.





Sucker :

A sucker is a shoot which arises on a plant from below ground usually from an adventitious bud on a root and grows vertically. The sucker originating from root is dug out and used as a propagation of plant. Chrysanthemum, Date palm, Pineapple *etc*. are propagated by sucker.



Stolon :

It is a modified stem which grows horizontally to the ground above the surface of the soil. Stolen is common in Bermuda grass and Mint. Stolon after cutting from the parent plant is used to raise new plant



Offset :

Offset is a lateral shoot that develops from the base of the main stem. It is generally found in monocotyledonous plants like Pineapple, Banana and Date palm.

