

**ASEXUAL MODE OF REPRODUCTION
IN
PLANTS
BY**

DR.A.M.SHUKLA

**M.G.SCIENCE INSTITUTE,
AHMEDABAD**

PLANT PROPOGATION

- Sexual mode
- Asexual mode
- Definition
- Others names- vegetative or clonal
- Economics importance- fruits, vegetables, flowers.
- Types- cuttage, layerage, graftage, transplanting

CUTTING :

- Plant part is always detached from parent plants.
- Cheap, convenient , easy, pure clones.
 - Taking parts of plants and planting them
 - Stem cuttings
 - Leaf cuttings
 - Root cuttings

Stem cuttings

- ❖ Hardwood

(Rose, Grapes, Bougainvillea)

- ❖ Semi-hardwood

(Croton, Aralia, Pauax)

- ❖ Soft wood

(Chrysanthemum, Tomato)

- ❖ Herbaceous

(Geranium, Chrysanthemum)



Stem Cutting with terminal growing area.

Stem Cutting

Leaf cuttings

- ❖ Petiole

 - (Peperomia)

- ❖ Marginal Buds

 - (Bryophyllum)

- ❖ Axillary Bud

 - (Tea, Rhododendron)



Leaf cutting with petiole.



Leaf cutting without petiole.



Leaf cutting that has rooted. Used leaf with petiole.⁷

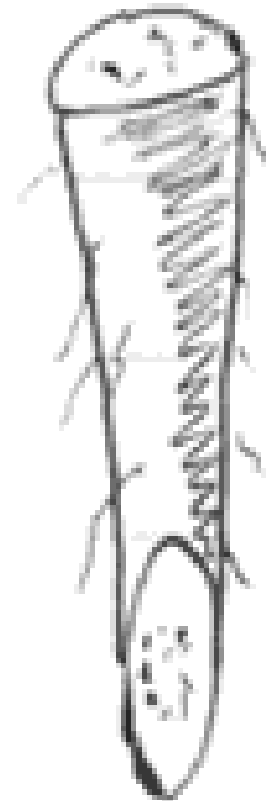
Leaf Cutting



Bryophyllum



Root Cuttings



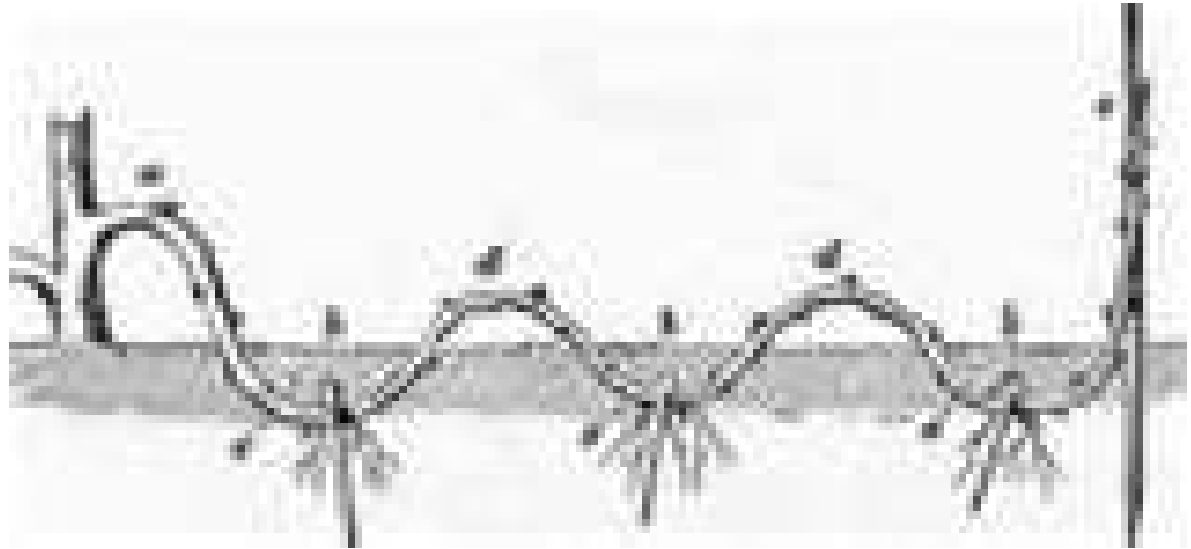
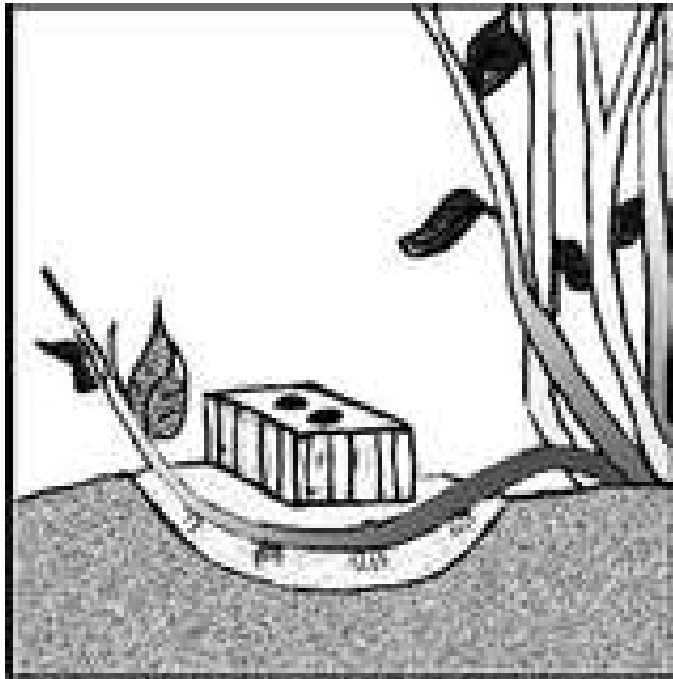
Root Cuttings
(Chikoo, Gauva, Raspberry)

LAYERING Plant parts not detached before rooting

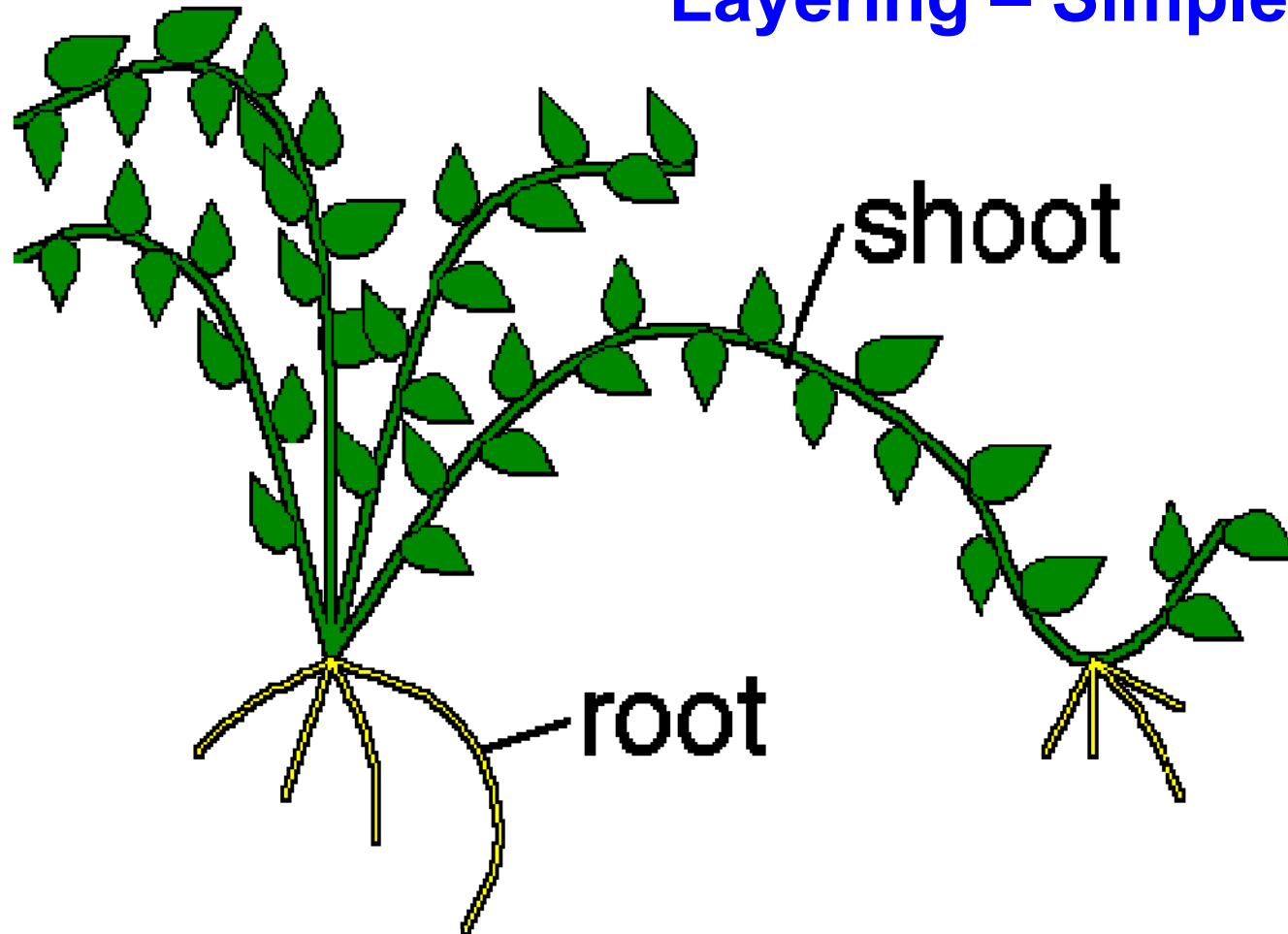
Cheap, easy to perform, rooting takes place certainly.

Different types:

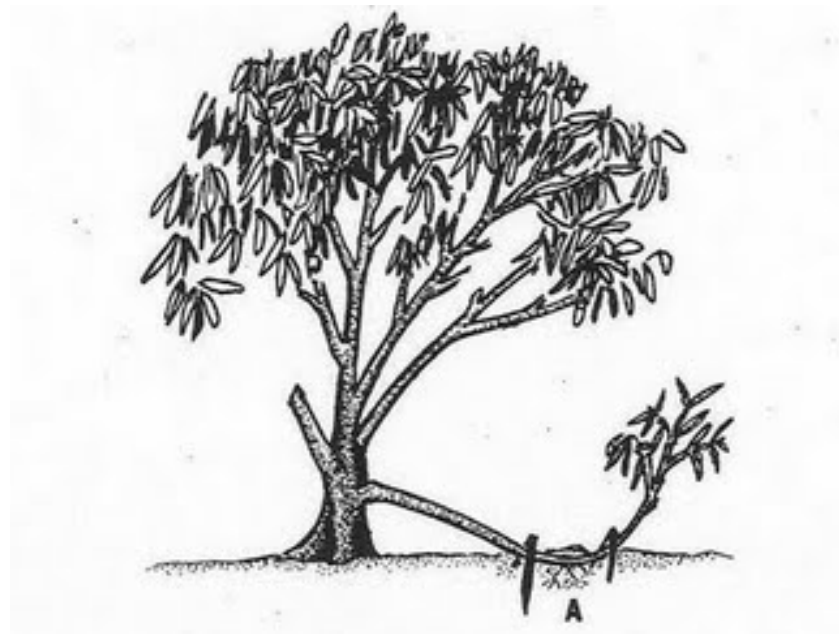
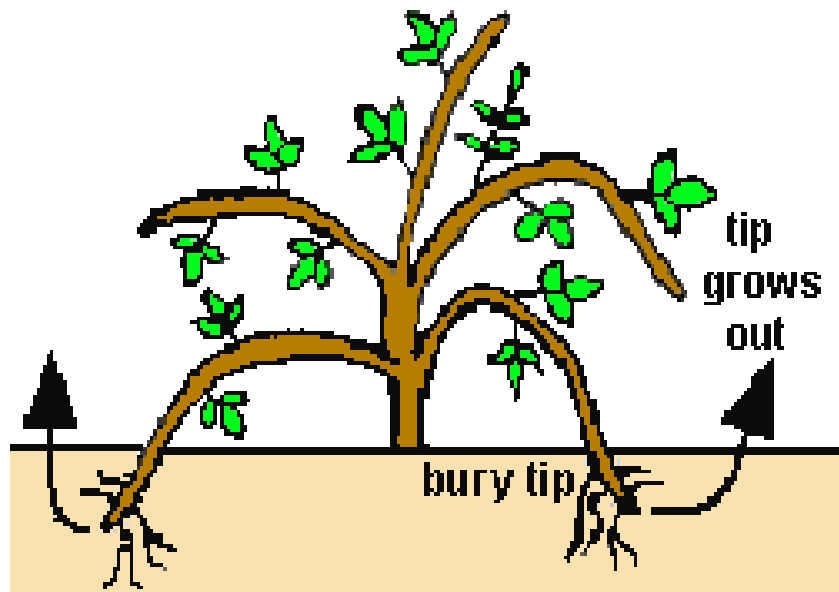
1. Tip (Raspberries, Blackberries)
2. Simple (Rose,
3. Trench (Cherry, Plum)
4. Mound (Apple, Pear)
5. Pot or Air (Guava, Ficus)



Layering – Simple or mound



Layering – taking a branch and placing It in the soil.





Removing epidermis for layering.



Packing moss around area to provide moisture.



Wrap in saran wrap to keep moisture in.



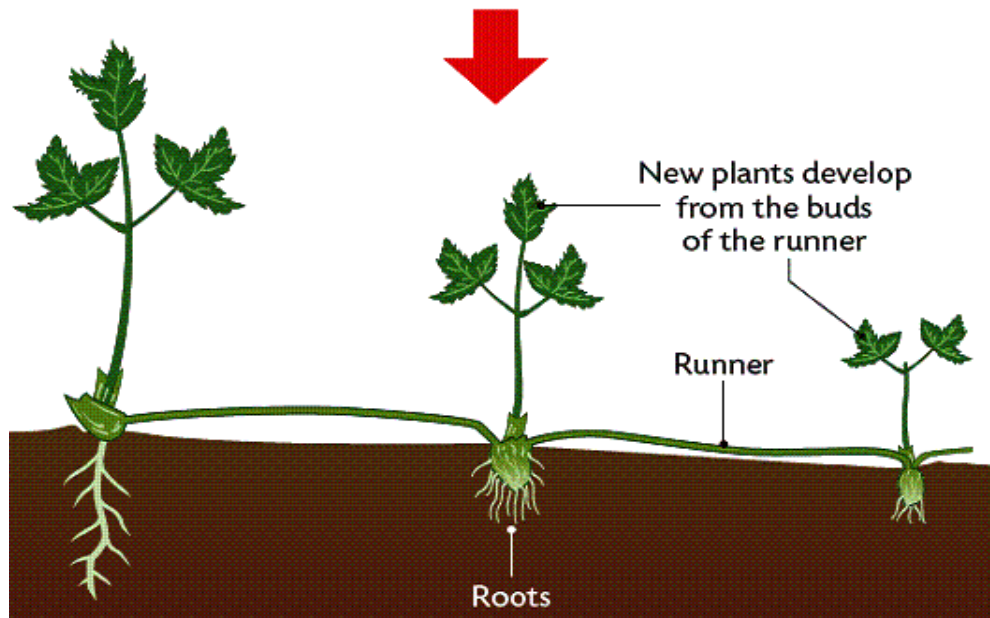
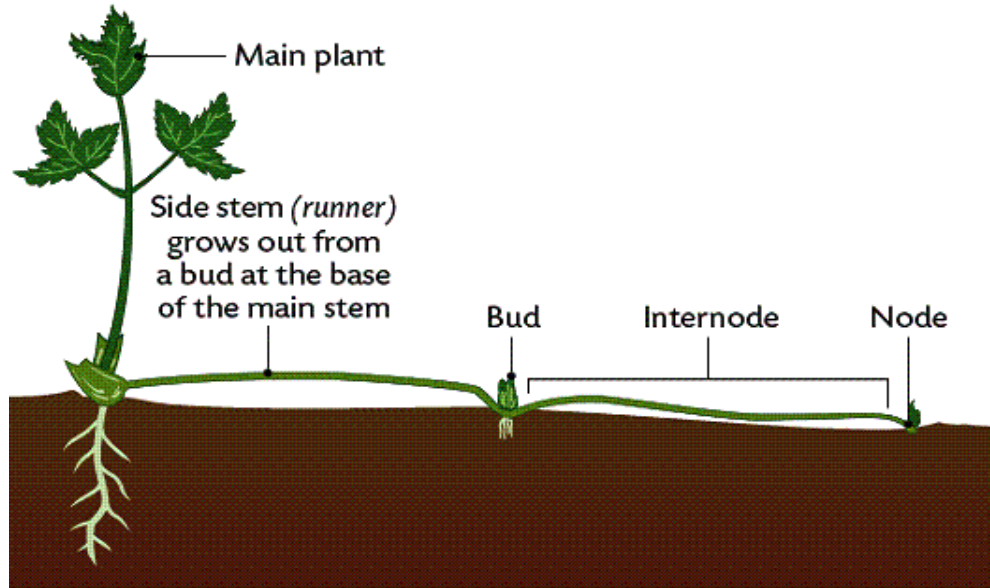
Removing saran wrap to see new roots and bud.



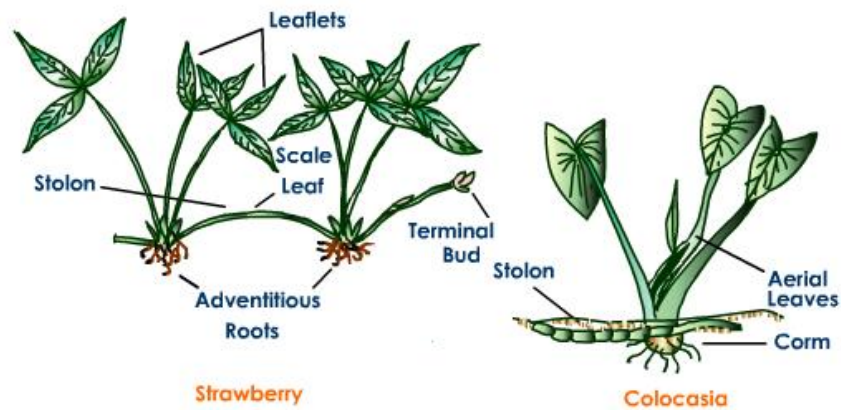
New bud with roots.

Air Layering

(iv) Runners : e.g. Grass



(v) Stolon : e.g. Mint,
Nephrolepis

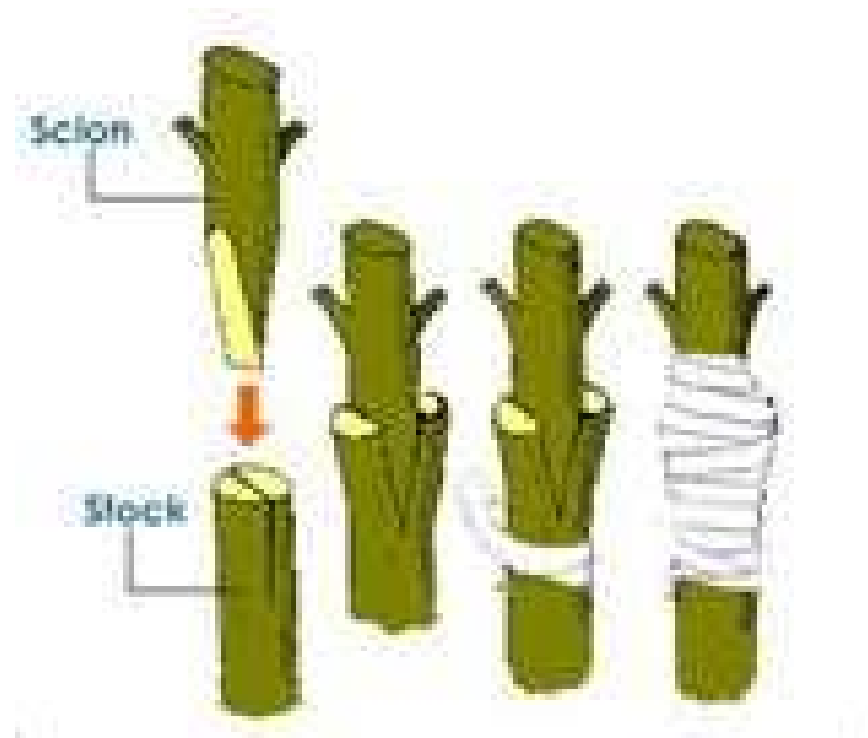


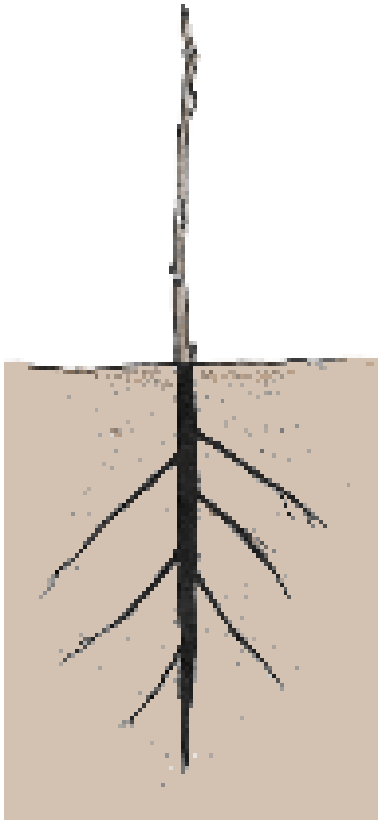
SEPARATE ORIGIN METHODS

(1) GRAFTING

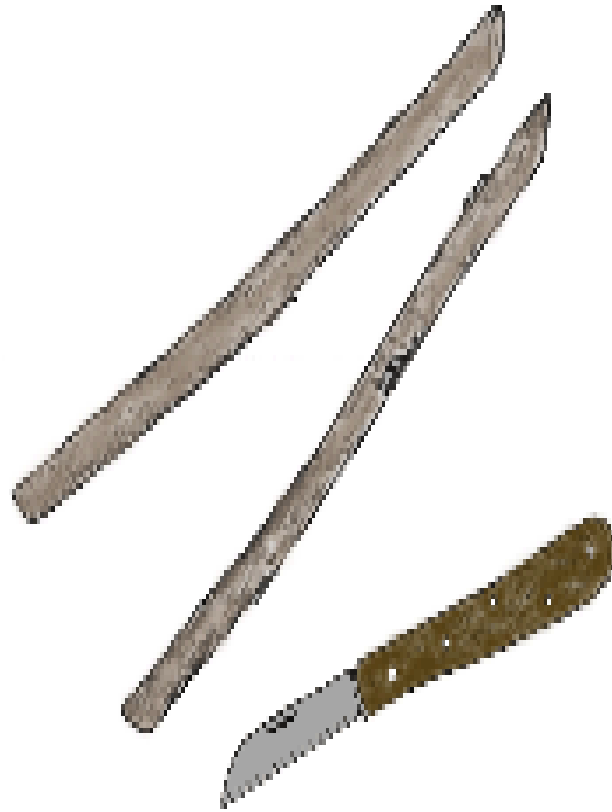
(2) BUDDING

Aaraop Na

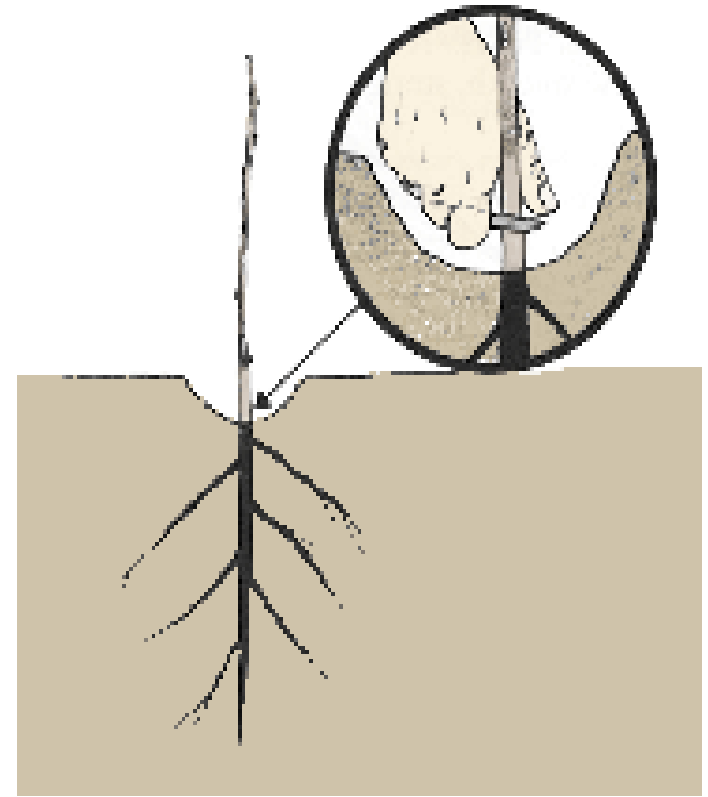




Step 1 -
Selection



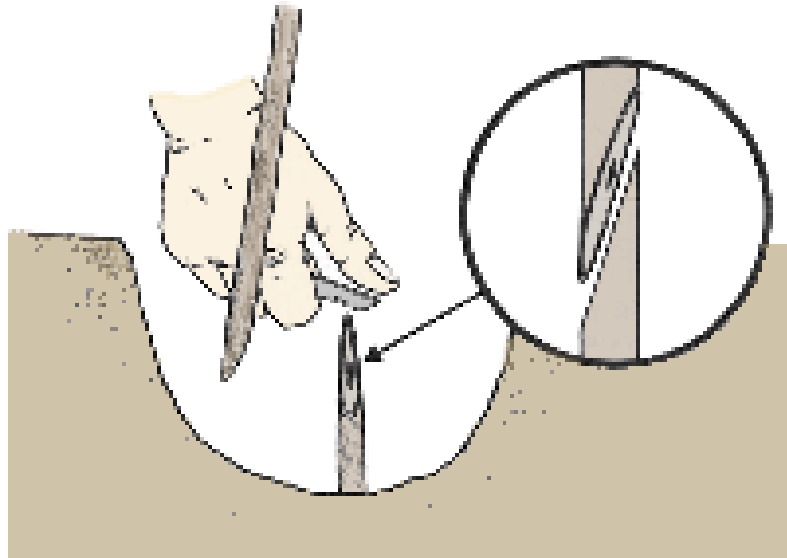
Step 2 - Tools



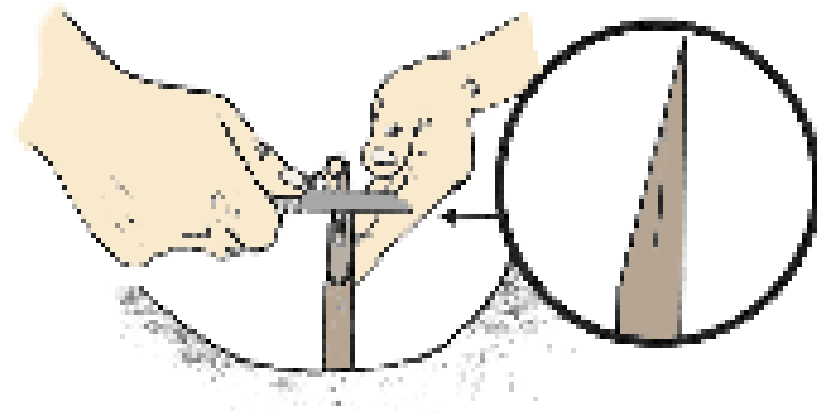
Step 3 - Cutting
stem to make
area for grafting.

Whip Grafting

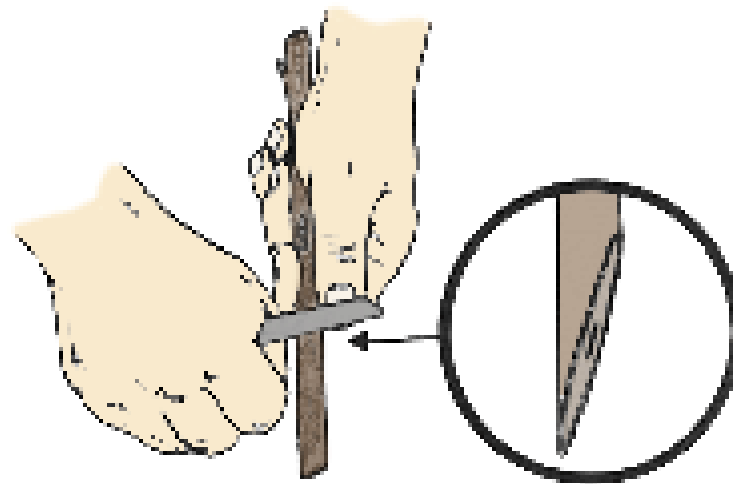
e.g. Apple, Pear



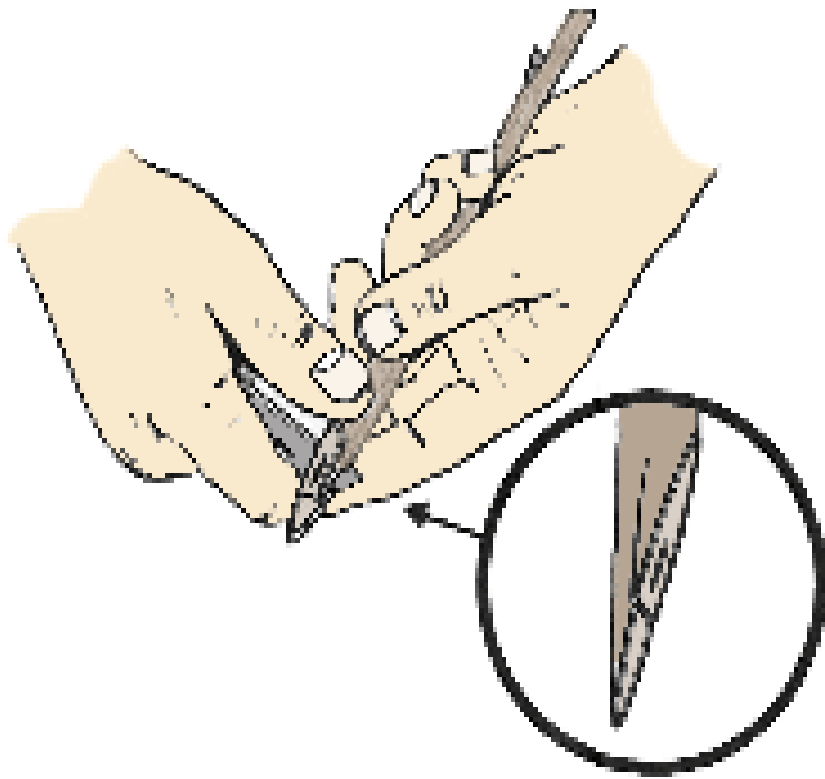
Step 4 - Showing how to make the cut.



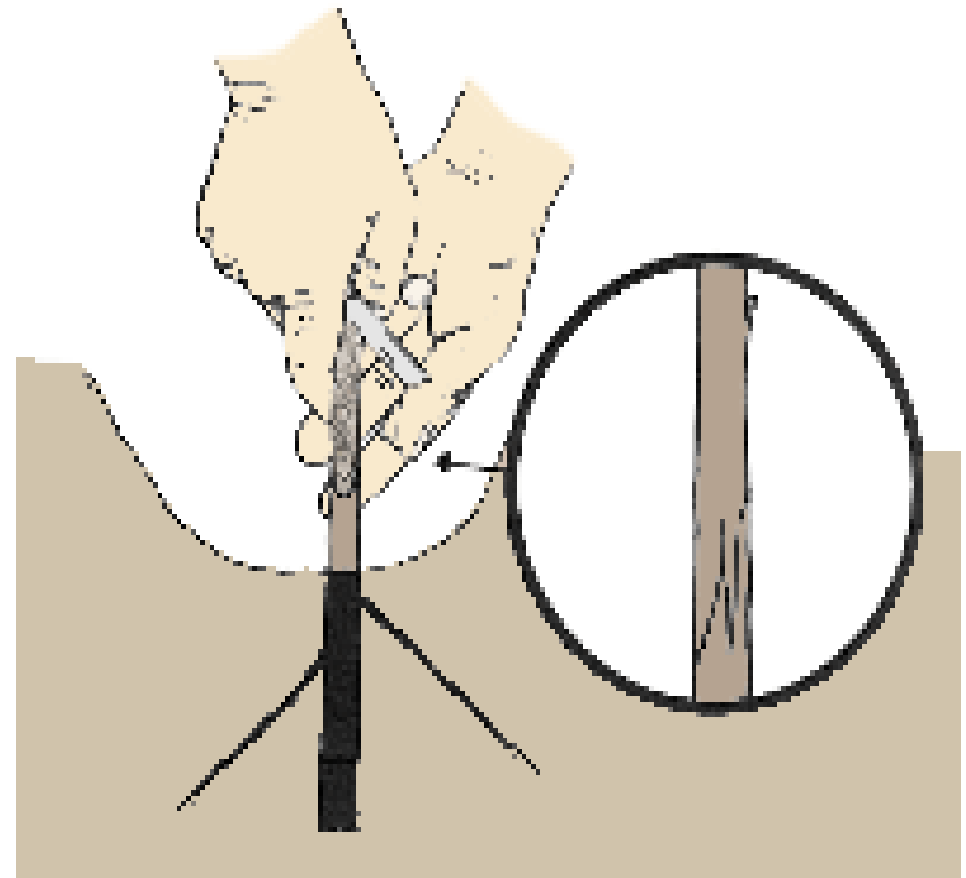
Step 5 – Adding the cut down through the middle.



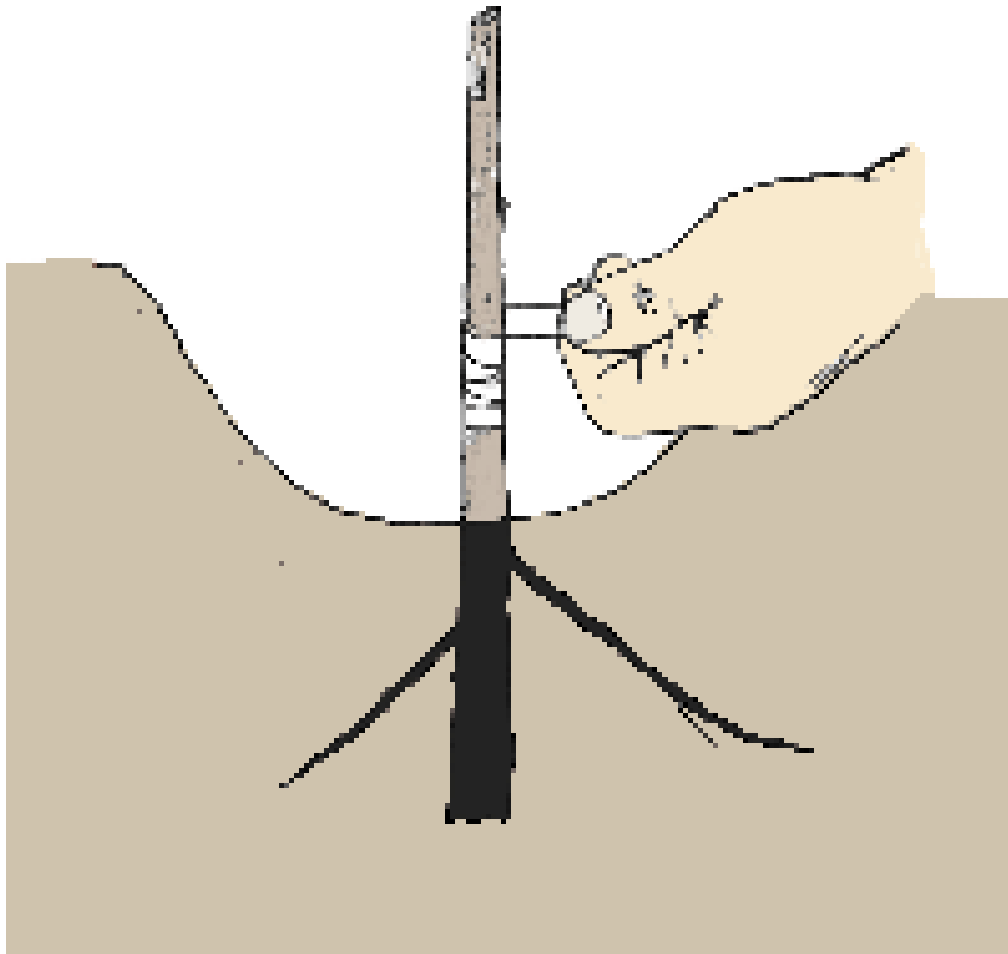
Step 6 – Making the cut on the grafting material.



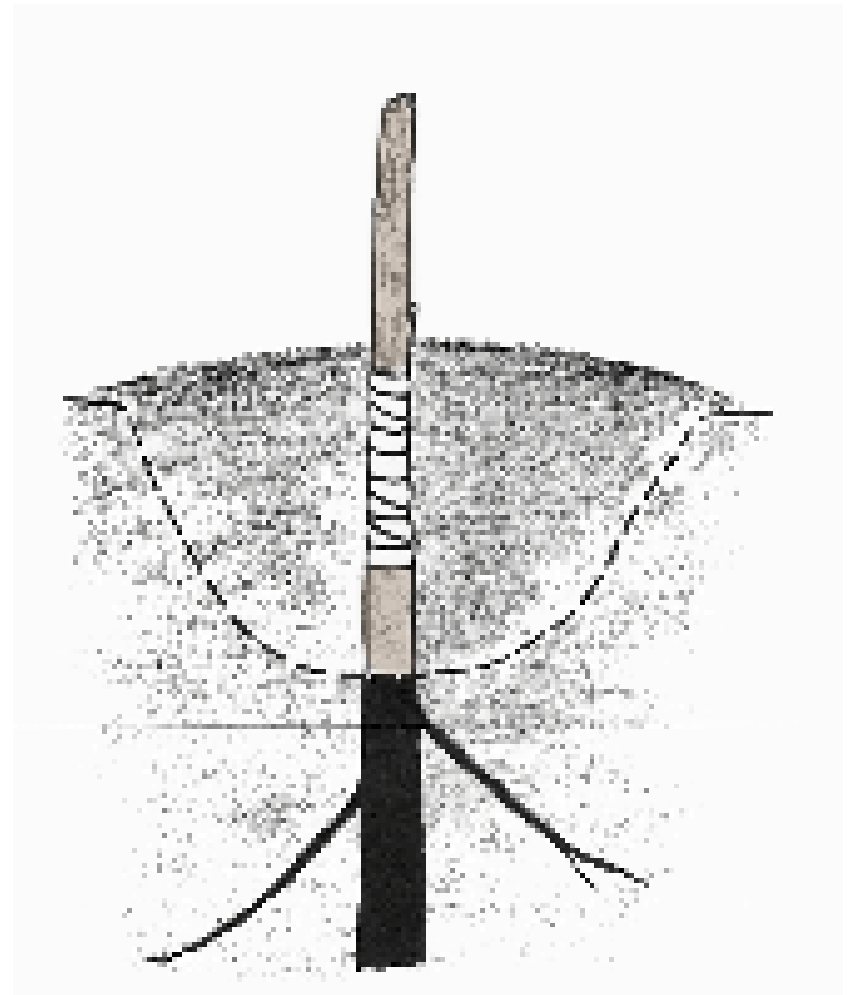
Step 7 – Making incision into the graft.



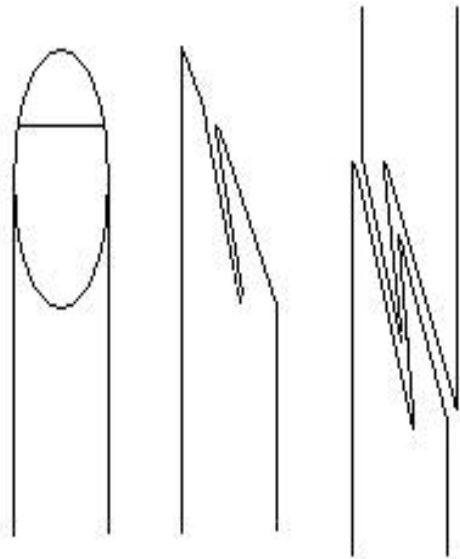
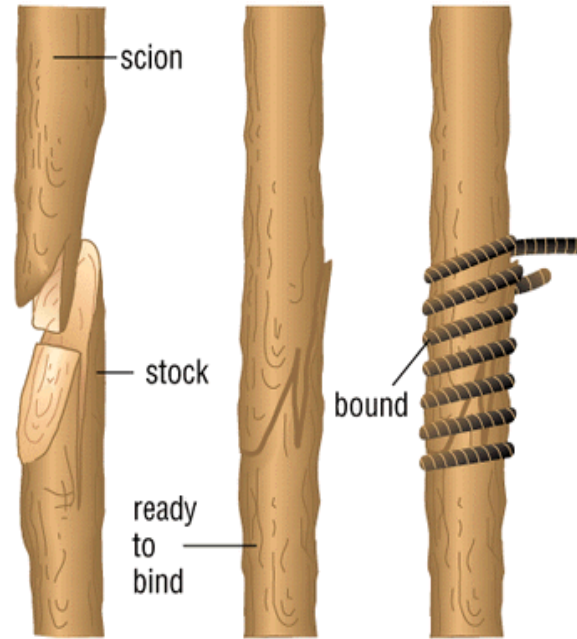
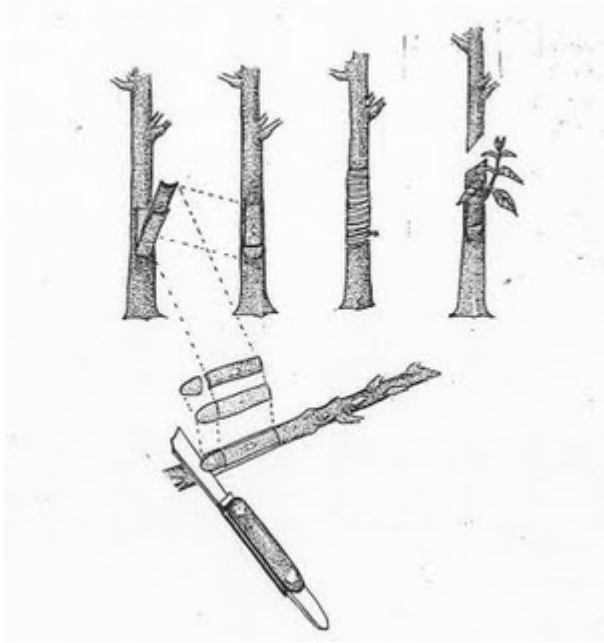
Step 8 – Putting the two grafts together.



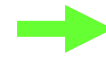
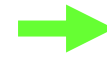
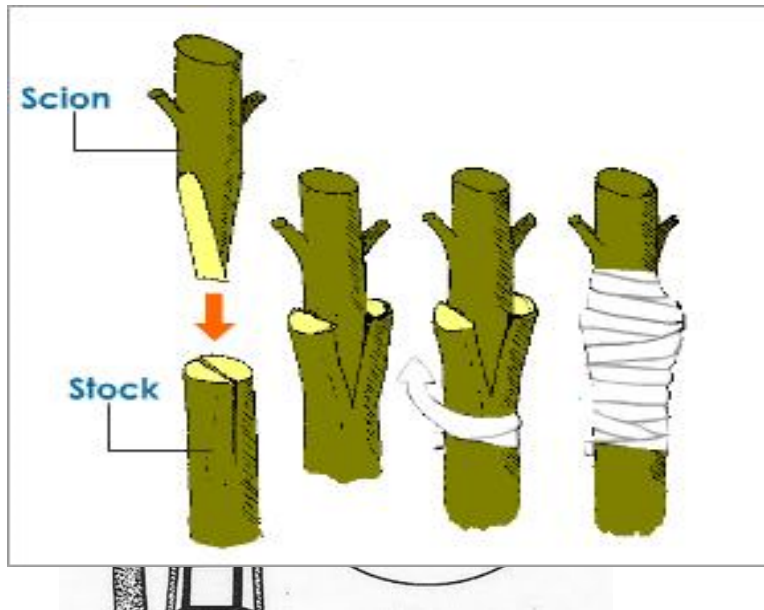
Step 9 – Wrapping the graft.



Step 10 – Finished product.



Cleft Grafting (Mango, Sapota, Jack)



Grafting



e.g. Mango, Chikoo

Top grafting



(2) BUDDING

Inserting bud into existing wood

❖ T shaped

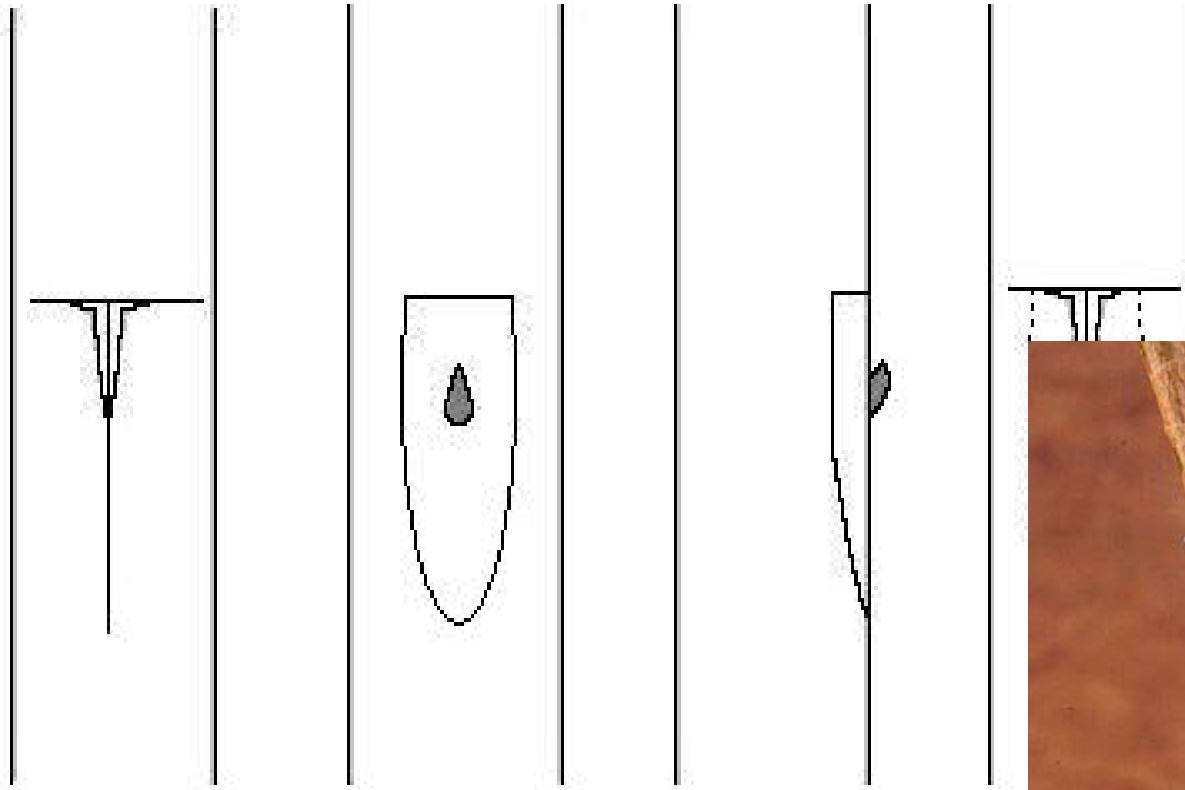
(Oranges, Rose, Plums)

❖ Patch

(Citrus, Mango, Custard apple)

❖ Flute/ Chip

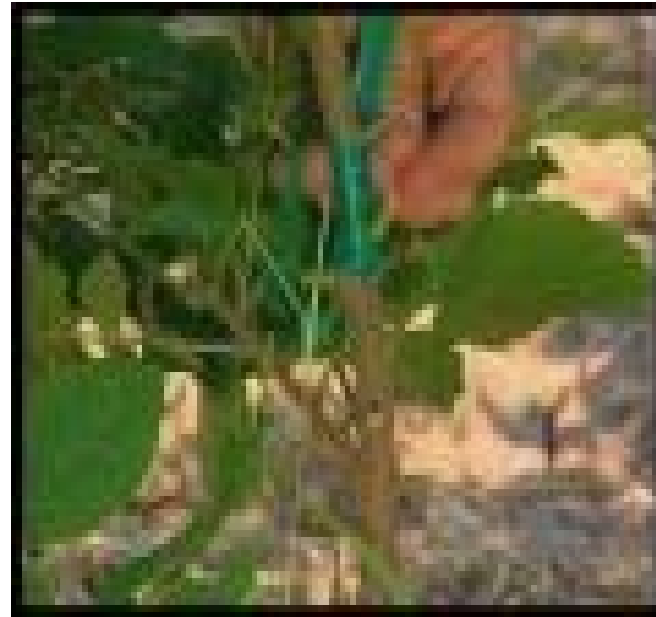
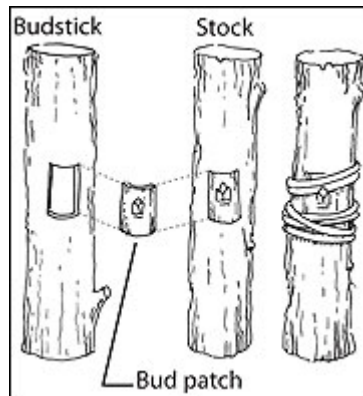
(Grapes, Jack, Ber)



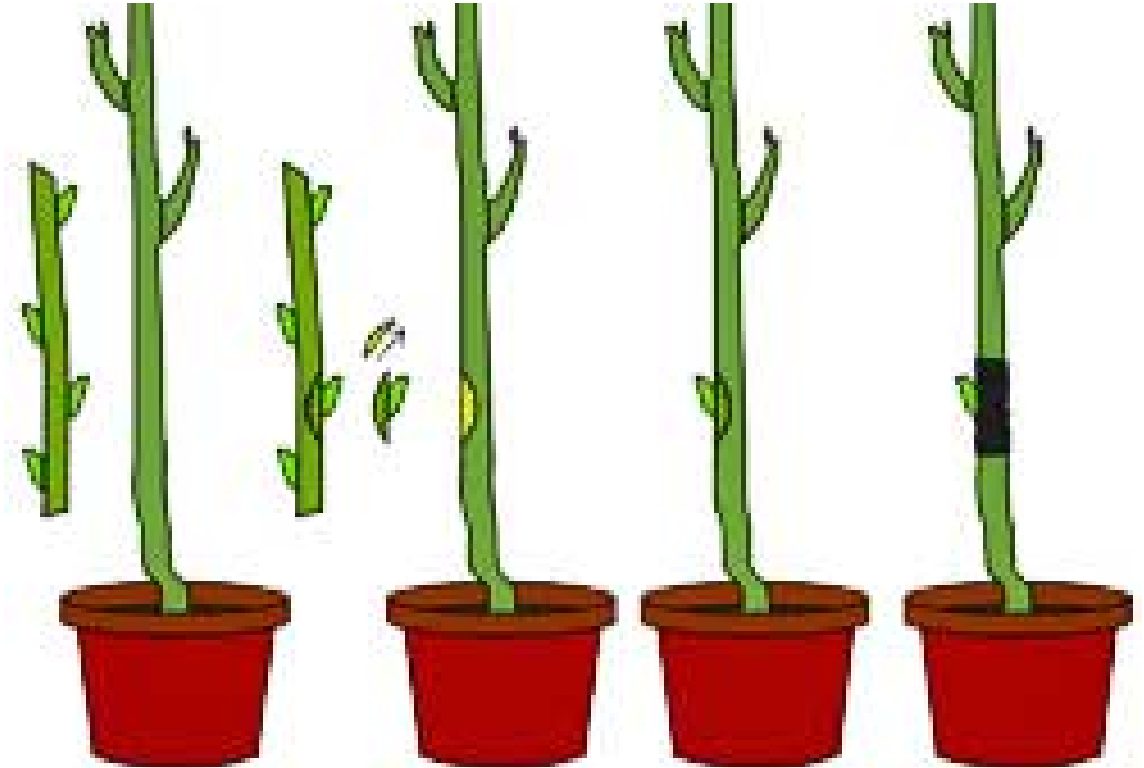
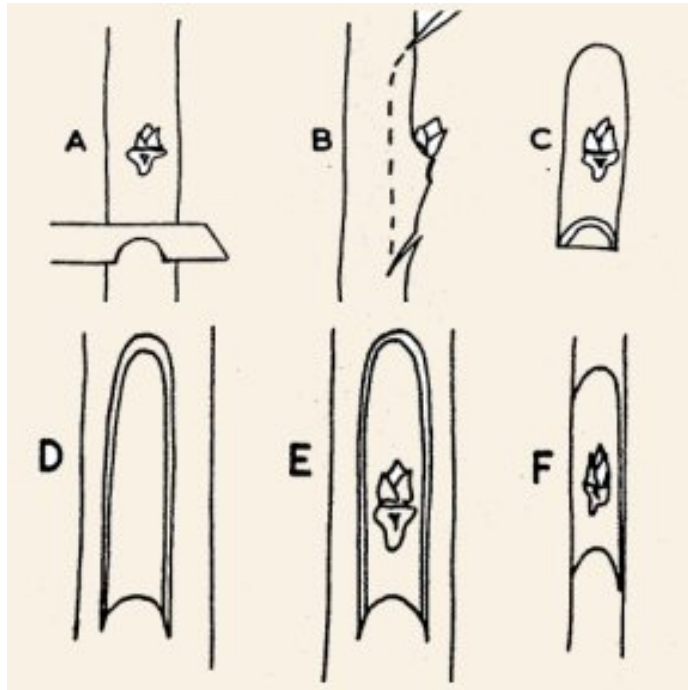
'T' Budding



Patch Budding



Chip Budding



thanks

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