

8. Remove the tape as soon as the scion has begun to grow to prevent girdling of the graft.

Propagation methods of some common important fruit crop

Fruit Crop	Methods	Ideal Time of propagation
Litchi	Air Layering	February to March (Spring) September to October (Autumn)
Mango	Veneer Grafting	February to June
Guava	Stooling/Air Layering	April to June
Papaya	Seed	February to March June to July October to November
Grape	Hardwood Cutting	February to March
Banana	Sword Sucker	October to November
Aonla	Patch Budding	March to April
Strawberry	Runners	March to April
Pineapple	Suckers, Slip and Crown	December to March
Citrus	Shield/T-Budding	June to August
Passion fruit	Softwood and Semi-hardwood cutting	August to October

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PROPAGATION TECHNIQUES OF FRUIT CROPS

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Propagation Techniques of Fruit crops

Two types of plant propagation:

1. Sexual propagation (seeds)
2. Asexual propagation (Vegetative)

Fruit plants do not come true-to-type when raised from seed and therefore fruit plants are raised through vegetative methods of propagation.

Types of Propagation Techniques:
Vegetative

Stem cutting	Budding
Hardwood cutting	T- Budding
Semi hardwood cutting	Shield - Budding
Softwood cutting	Patch - Budding
	Ring - Budding

Grafting	Layering
Approach grafting	Air Layering
Side Grafting	Simple Layering
Splice Grafting	Trench Layering
Tongue Grafting	Serpentine Layering
Veneer Grafting	Mound Layering

Air layering: It is a method of propagation new trees and shrubs from stems still attached to the parent plant. The stem is wrapped with damp moss to encourage roots to form.

Procedure:

1. Arrangement of tools and materials
2. Preparation: soak the moss, then squeeze out the excess water
3. Cut the medium sized branch (remove the peel ring of bark 3-5cm circularly)
4. Insert the plastics
5. Wrap with sphagnum moss
6. Wrap with plastic foil
7. Cut the rooted branch after 3-4 weeks and
8. Potting up.

Stem cutting: A stem cutting is a separated portion of plant stem that can regrow into a new independent clone via vegetative propagation.

Procedure:

1. Assemble materials
2. Prepare the soil and mix up with compost
3. Add water to soil
4. Take cuttings (pencil size and 25 to 30cm)
5. Removed lower leaves from the cuttings
6. Insert the cuttings into the soil mixture.
7. Place in plastic bag and water the cuttings
8. Place the cuttings in a suitable location.

Budding: Is a method of plant propagation that a plant bud is grafted onto the stem of a rootstock plant.

Procedure:

1. Preparation of rootstock

2. Preparation of the bud – scion
3. Insertion of the prepared bud – scion
4. Tying or wrapping and
5. Cut back of the rootstock

Grafting: is a techniques used to join parts from two or more plants to grow as a single plant. It is an artificially created, vegetative method of plant propagation. The upper part (scion) of one plant grows on the root systems (rootstock) of another plant.

Stock: the part of the combination that provides the root is called the stock.

Scion: the piece of wood with one bud on them and the added piece is called the scion.

Procedure:

1. The diameter of both the rootstock and the scion should be about the same size, not more than ½ inch in diameter.
2. Cut a branch off the rootstock, leaving a stub of at least 1ft.
3. Cut a straight, vertical 1-1/2 inch cut on the bottom end of the scion and the top end of the rootstock
4. Cut a slit down the middle of the scion cut, leaving a tongue about 1 inch long attached to the scion.
5. Do the same to the rootstock
6. Then fit the scion and rootstock together interlocking the tongues so that the cambium, or inner bark is in contact.
7. Cover the graft with electrical tape to hold the two pieces together.