

The image shows two round, brown, bumpy Sapota fruits (Annona squamosa) hanging from a branch. The fruits have a characteristic bumpy, scaly texture and are surrounded by large, green, glossy leaves. The word "Sapota" is written in large, red, sans-serif font across the center of the image.

Sapota

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Introduction

- **Botanical Name** : *Achras Zapota.*
- **Family** : Sapotaceae .
- **Origin** : Mexico.
- **Chromosome No** : $2n=26$.
- **Fruit type** : Berry.
- **Edible part** : Mesocarp.

Importance and uses

- ❖ Fully ripened fruits are eaten along with skin.
- ❖ Fruits contain sugars ranging from 12 to 18%.
- ❖ Ripe fruits contain carbohydrate 21.48.

Per 100g fruit contains

Protein. 0.7g.

Fat.1.1g.

Calcium 28mg.

Phosphorus 27mg.

Iron . 2mg.

Ascorbic acid. 6mg.

Ripe fruits are used for jam jelly sherbet and halwa.

Cultivation

- ❖ **Climate:** The optimum temperature for Sapota should lie between 11-34 Celsius.
- ❖ **Sapota is hardy, tropical fruit crop.**
- ❖ **SOIL:** The most ideal soil are deep alluvial , sandy loams, red laterite and medium black soil.

Varieties of Sapota

- **Kirti Bharti:** popular in A.P, thick skin , good transport value.
- **Cricket ball:** Famous in A.P.
- **Kalipatti:** Popular in Maharashtra.
- **Murrabba :**Popular in Maharashtra.
- **Pilli Patti:** Suitable for high density planting.
- **Co-2:** Clonal selection from baramasi.
- **Hybrids:**
 - **Co-1**
 - **PKM-3**
 - **DSH-1**
 - **DSH-2**
 - **CO-3**

Propagation and Rootstocks

- **Air-layering :**

- Root stock:**

- **Khirini (Manilkara hexandra)**

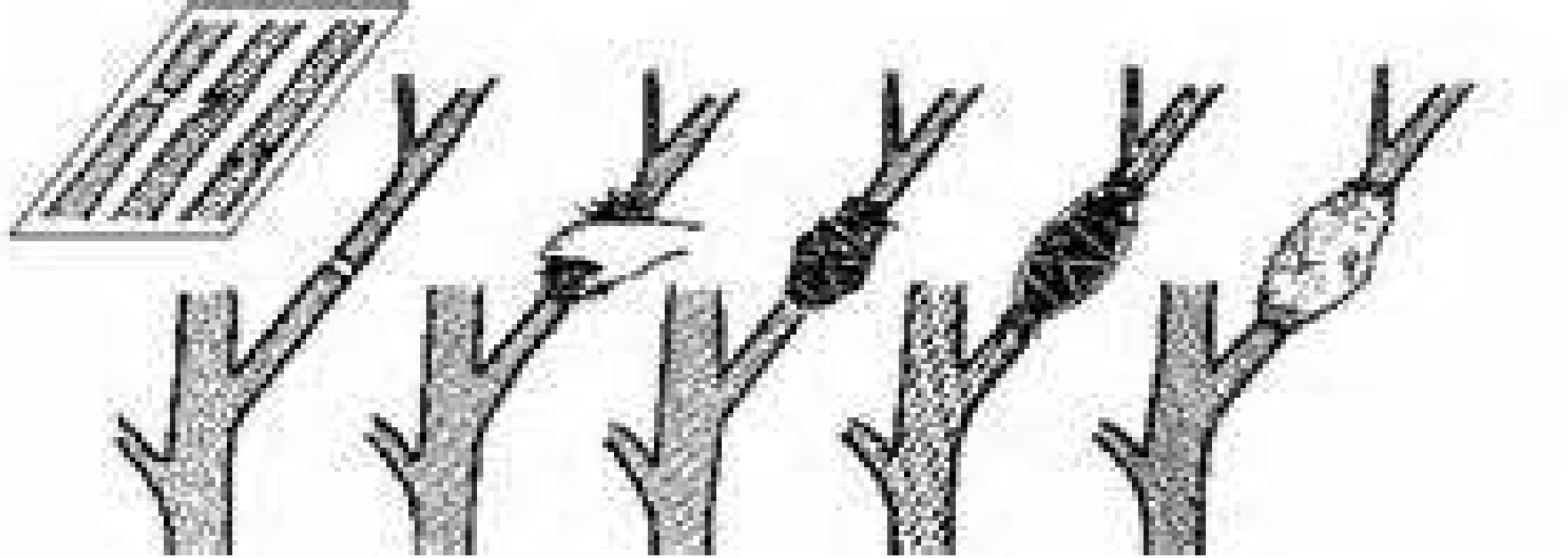
- **Inarching : Inarching is a commercial method of propagation.**

- The best time is February for inrching.
.inarching is done on the one year-old stock.**

- **Soft wood grafting :It could be done in one year stock plants during july –August with more than 80% success.**



Root stock



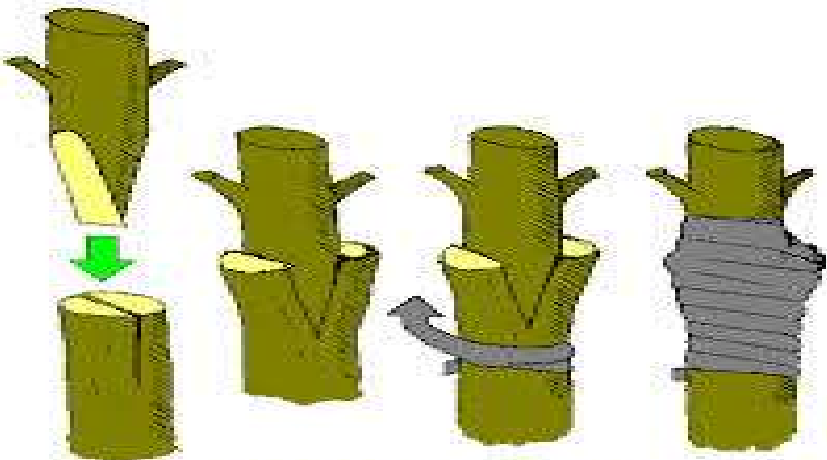
Sapota Air layering



Grafting

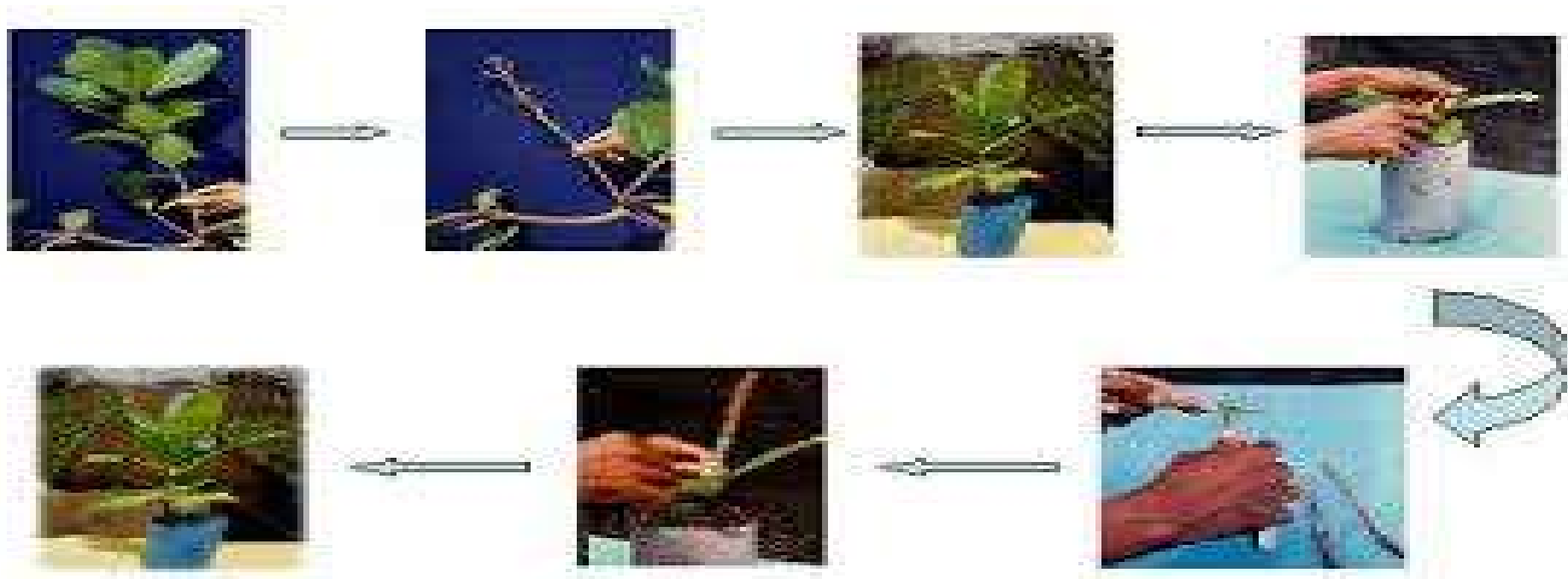


Inarching



CLEFT (OR TOP WEDGE) GRAFT

Soft wood grafting



Softwood grafting

Planting

- Best time for planting is during early monsoon.
- Pits of about 60 to 100 cm³ are prepared well in advance during summer at a spacing of 8-10m distance in the April-May.
- After one month pits are refilled with 25kg FYM.

Flowering

- Seedling take seven or more years and vegetatively propagated plants require 2 to 3 years for flowering.
- There are 2 flowering seasons i.e. February – march and august to November.



Fruiting

- ❑ **Sapota fruit is of berry type.**
- ❑ **It exhibits a double sigmoid pattern of growth with two periods of active growth and one period of lag phase.**
- ❑ **Time taken for fruiting varies from variety, climate other factors. It takes 4 months to 10 years.**
- ❑ **Fruit drop is very common. It can be prevented by spraying NAA (25-100ppm) at flowering and pea stage increased fruit set in sapota.**

Training and Pruning

- **Sapota tree has a thick central stem and a well-balanced distribution of branches.**
- **After 6 to 7 years of growth , lower most branches up to a height of one meter are removed .**
- **Overcrowded , shaded ,dried and diseased and criss-cross branches are pruned as per necessity.**

Irrigation

- Sapota is grown as well as irrigated crop in different regions.
- Scheduling 10 to 11 irrigations each at 80mm depth to be applied at 32 day interval in winter and 18 day interval in summer.

Weed Management:

Therefore ,weed should be removed when they appear. chemicals bromacil 30kg /ha successfully controlled.

Manuring and Fertilization

Age of tree years	FYM (kg/tree)	N (gm/tree)	P (g/tree)	K (gm/tree)
1-3	50	50	20	75
4-7	50	100	40	150
7-10	50	200	80	300
11 and above	50	400	160	450

Diseases

□ Leaf spot.

- The disease is caused by a fungus. *Phaeophleospora Indica*.

Symptoms

Leaf spot becomes severe during rainy season.

The characteristic symptom is development of numerous small pinkish to reddish- brown spots.

Control:

- ❖ Spray Dithane Z-78 @0.2 per cent followed.

Sooty mould:

- The casual fungal disease by *Capnodium sp.*

Symptom

It is common disease in India affecting photosynthetic function of leaves and disfigures the fruit.

Control

- Spray Zineb at 40 g in 18 litres of water to check the disease.

Insect pests

- **Stem borer.**
- **Mealy bug.**
- **Fruit borer.**
- **Scale Insects.**
- **Bark eating Caterpillar.**
- **Leaf miner.**

Harvesting

- **Fruits are to be harvested at full maturity stage.**
- **Since sapota is a climacteric fruit it improves quality after harvesting.**
- **The peak harvesting periods are January – February and may- June in Maharashtra, march-may and september-october in Karnataka and A.P.**

Yield

- **The yield increases from 100 fruit in the fourth year 3000 fruits in 30 years old plant.**