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*Shaping Lives...
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Center for Smart Agriculture

Hi Tech Fruit Culture



Module 1: Nursery Management
Session 1: Nursery Management in Mango



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- **Nursery management in mango**
- **Propagation**
- Mango highly heterozygous and cross-pollinated crop.
- There are 2 types of mango varieties
- Polyembryonic (true-to-type seedlings)
- Monoembryonic (propagated vegetatively)
- Mango can be raised from seed (sexual) or propagated vegetatively (asexual)



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- For raising rootstock, the seeds of mango are sown within 4-5 weeks after extraction otherwise they lose their viability.
- In some places, seeds are sown directly in polythene bags. After germination, the leaves turn green in 2-4 weeks
- These seedlings (which are grown in raised bed) are transplanted to polythene covers containing red soil, sand and farmyard manure.



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• **Inarching or approach grafting :**

- The method of inarching or approach grafting is quite time consuming, but it is still the leading method for commercial propagation of mango plants.
- The method consists of uniting the selected shoot (scion) of a desired parent tree (mother plant) with the potted or transplanted seedling (rootstock) by approach grafting.
- For this purpose, about one-year-old seedlings are most suitable when they attain a height of about 30-45 cm and thickness ranging from 0.75 to 1.5 cm.



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The stems are bound tightly together with string, tape or raffia.



After graft union heals, the stock plant is cut above the union and the scion is cut below the union.



Inarching or approach grafting



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Veneer grafting :

- This method of propagation possesses promise for mass scale commercial propagation.
- The method is simple and can be adopted with success.
- For conducting this grafting operation, a downward and inward 30-40 mm long cut is made in the smooth area of the stock at a height of about 20 cm.
- At the base of cut, a small shorter cut is given to intersect the first so as to remove the piece of wood and bark.



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Veneer grafting



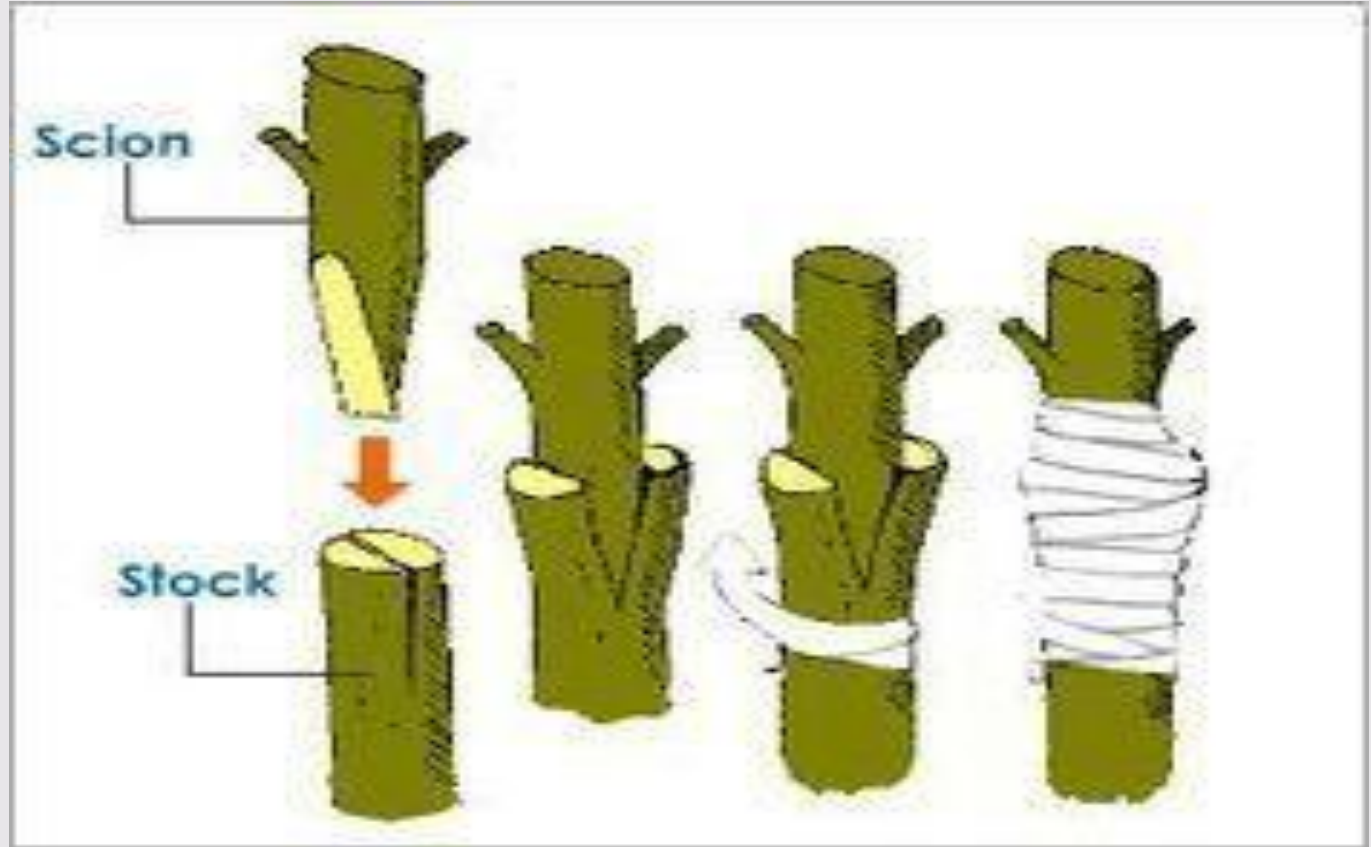
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Softwood grafting

- This method of grafting is done when the rootstock is overgrown and thus not suitable for stone grafting. Normally in this method, seedlings of 8-10 months old are selected.
- The grafting is done on newly emerged flush.
- The scion wood to be used is defoliated 10 days prior to the grafting and has same thickness as that of terminal shoot.



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Softwood grafting



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*Thank
you*

