

Citrus

Propagation

In India citrus trees are propagated both by seeds and vegetative means. Seed propagation is still practiced in the case of acid limes and to produce rootstocks for budding purposes.

Shield or T budding is the most commonly used method of vegetative propagation. Budding is generally done either in spring or in September.

Shield or T Budding

In this method of propagation, a bud from desired variety (scion) is transferred on the rootstock with an objective of utilising the vigorous root system of the rootstock and combining the best characters of both. A plump, but not too elongated bud is selected from the middle section of the scion shoot. It is removed by making an incision around the bud with the help of sharp budding knife. On the selected rootstock T-shaped incision is made just enough to accommodate the bud. The bud is inserted in the incision and tied with a strip of plastic film in such a way that the tip of the eye remains open. Budding should be preferably done as low as possible on the rootstock. It takes three to four weeks for the bud to unite when the new shoot from the grafted bud is about 10 cm long the top portion of the stalk above the union is cut off and the plastic film is removed.

For budding, proper selection of the rootstock is very important as it contributes to the vigour, productivity and quality of fruits.

It also influences resistance and tolerance to certain diseases and pests and plays a major role on agro climatic adaptation.

Rootstock	Characters
Rough lemon	Suitable for light (sandy) and infertile soil, resistant to <i>Tristeza virus</i> . But it is most susceptible to cold and induces poor quality fruit
Sour orange	Suitable for silty, clayey and poorly aerated soils, improves the fruit quality and has high sugar and acid content, improve the fruit size
Cleopatra mandarin	Suitable for heavy soils
Trifoliolate orange	Cold tolerant, improves the fruit quality and has High sugar and acid content, hasten fruit maturity and the fruit size. It also induces precocity. Resistant to Citrus nematode (<i>Tylenchulus semipenetrans</i>). It is ideal for high density plantations.
Sweet lime	It gives high yield in early age followed by reduction in the yield later on. Also it is most susceptible to cold and induce poor fruit quality
Sour lime	Most susceptible to cold

Rootstock	Characters
Rough lemon (Jambheri)	Vigorous rootstock. Induce poor fruit quality and resistant to <i>Tristeza virus</i> and drought and salt tolerant
Sweet lime	Give high yield in early age followed by reduction in the yield
Citranges	Resistant to Citrus nematode (<i>Tylenchulus semipenetrans</i>)
Rangpur lime	Tolerant to Phytophthora foot rot and resistant to <i>Tristeza virus</i> , Drought and salt tolerant
Sweet orange	Resistant to <i>Tristeza virus</i>