

Propagating arid fruits commercially

The importance of arid fruits is increasing because people are realizing the importance of new useful bioactive compounds, low calories, sweetness, insecticidal compounds and gamma linolenic acid. Planting of these hardy species can stabilize productivity on marginal lands. Looking into the importance of these underutilized fruits, the demand for its planting material, is increasing day-by-day. To meet the demand of genuine planting material, procedure of vegetative propagation of underutilized fruits has been standardized for generating quality planting materials. From various studies for optimization of period of vegetative propagation and quality of scion, shoots and rootstocks of these fruit crops have been summarized, particularly the methods which can be used for commercial multiplication of arid and semi-arid underutilized fruits (jamun, bael, tamarind, khirni, chironji, custard apple, wood apple, karonda, gonda, mahua, pilu, ker etc.).

Indian sub-continent holds vast genetic diversity of several arid and semi-arid underexploited fruits. Underutilized fruits provide food, nutrition, and substances to the native communities and are an additional source of income. Many of these species are being used by local people as minor fruits or for formulation of various *Ayurvedic* medicines. These fruits still remain neglected due to the lack of awareness regarding commercial method of propagation techniques and sustainable production technologies as these fruits still grow naturally wild or semi-wild conditions providing livelihood and nutritional support to small and marginal farmers, and tribals women and children. If properly utilized, these underutilized fruits have potential as a source of income, food, fodder and fuel besides meeting multipurpose needs of local communities. Recently, considerable interest has aroused in production of underutilized fruits.

PROPAGATION IN ARID FRUIT CROPS

JAMUN

Soft wood grafting and patch budding in March-April give maximum success, 90.12 and 85.24 per cent, under semi-arid environment. For softwood grafting, a healthy, 35 -45 days old shoot is selected and leaf blade is removed with the help of a sharp knife leaving petiole intact. After 10-15 days, when buds in leaf axils swollen properly and petiole are dropped down after gentle shaking of prepared scion shoots, these scion shoots are cut from mother plants and used for softwood grafting. For patch budding, a healthy bud is selected from axils of leaf. Different sizes of poly bags, 25 cm × 15 cm, 25 cm × 10 cm, 30 cm × 8 cm and 20 cm × 8 cm, are used to budding in March in nursery. The maximum number of buddable rootstocks (98.00 %) is recorded in 25 cm × 15 cm size, followed by 25



Softwood grafting in jamun



In-situ patch budding in jamun

