



Research Paper

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Effect of age of scion on the percentage graft-take and growth of grafts in softwood grafting of chiku (*Manilkara achras* L.) cv. CRICKET BALL

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ABSTRACT : Experiment on effect of age scion on graft- take showed grafting of Chiku with 3- month old age young scion was found to be more successful. Maximum graft- take (77.49 %), highest height of the scion shoot (19.68 cm) and maximum number of leaves (23.27 leaves per shoot) were obtained in grafts prepared with young scion (3- month old age).

KEY WORDS : Age of scion, Graft-take percentage, Growth, Softwood grafting, Chiku

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Sapota, *Manilkara achras* (Mill.) Fosberg (Syn: *Achras zapota*, L.) is one of the most important tropical fruit. It is called as a 'chiku'. Maharashtra is a leading producer of chiku. In chiku softwood grafting is reported to be a very easy, convenient in handling, involve simple skill and can be done with in short period. The most important feature of this method is that, it is a detached scion method. It is very difficult task that of what age of scion should selected for the grafting. Because the age of scion shoots play key roll in the success of grafting. There is a need for standardizing the age of scion shoot for grafting in chiku. Hence, present study was undertaken at Regional Fruit Research Station, Katol to study the influence of age of scion on success of grafting and growth of grafts in chiku.

RESEARCH METHODS

This experiment was conducted in Randomized Block Design (RBD). There were three treatments involving three age groups of scion and were replicated seven times. Twenty

grafts were prepared under each treatment. Scion were categorized based on the colour and age of the scion wood into

- Scion with green colour (about 3 – month old)
- Scion with greenish brown colour (about 6 – month old)
- Scion with brown colour (about 9 – month old)

Soft wood grafting was carried out during the month of August and September on Khirni rootstock. For grafting operation, a scion of about 10 cm length and same thickness as that of the stem portion with the 'V' cut on the rootstock was selected. The lower end of the scion was cut into gently sloping wedge of about 5 cm by removing the bark and a little wood from the two opposite sides. Care was taken to retain some bark on the two remaining sides. The wedge of scion so prepared was inserted in to the 'V' shaped slit of the rootstock and tied with white transparent polythene strip firmly. Prepared grafts were kept in 70 per cent shaded net house.