

Poster

NEW TOP WORKING TECHNOLOGY FOR CONVERTING CITRUS TREES WITH DIFFERENT VARIETIES

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ABSTRACT

Genus citrus consists several species and prevalent in homegardens. However, many trees are with poor quality characteristics and low yield. Changing those poor quality characteristics with high yield and good quality varieties without replacement of the mature trees will improve the productivity and variation of citrus within a short period. A new technology was developed to convert unwanted mature citrus trees to productive good quality citrus trees by *in situ* grafting of known variety/ varieties. Six different citrus species, namely sweet orange (*Citrus cinensis*)- var. bibile sweet and HO CR 24; mandarin (*Citrus reticulata*) var. indu; and lime (*Citrus aurantifolia*) var. local and thahiti were grafted successfully with a 91% success rate on a citrus accession (HO CR 19) after rejuvenation. The scion containing one bud was wedge grafted and bud union was wrapped by transparent polythene with different gauges (150, 200 and 300). The gauge of polythene was not significantly affected the success rate of grafting. Parafilm tape with 4-5 cm length and 3 cm width was wrapped from the base of graft union to cover the scion entirely. A new shoot of grafted variety came out by bursting parafilm after 3-4 weeks of grafting. Any post graft management practices was not followed and the method can be practiced year round without interference from any climatic conditions. Conventional top working practice with covering wedge graft of scion with 4-6 number of buds by a polythene bag (15 cm x 20 cm) was successful only about 10 - 35% compared to new method (91%). Moreover, post grafting management practices including shading and replacing polythene cover were required in conventional method. The new technology was efficient, easy and new shoots grow fast with new branches bearing fruits within a year.