Grafting of high yielding nutmeg (*Myristica fragrans* Houtt.) selections

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Investigations were undertaken to study the effect of different maturity stages of scion and rootstock on grafting of nutmeg. The success of grafting after few days of scion wood storage was also studied.

In the first experiment two different stages of scions i.e. dormant stage with partially mature green leaves and dormant stage with fully mature dark green leaves from clonal selections were grafted to 1-year-old rootstocks. A significantly higher percentage of grafting success ($P<0.05$) was obtained in scion with partially mature leaves (53%) than those with fully mature leaves (26%) after 4 months.

In the second experiment, grafting success was compared in four different stages of rootstocks i.e. seedling before emerging of leaves (two-week-old), seedling with one leaf (3-week-old), seedling with two leaves (4-week-old), and seedling with three leaves (5-week-old) using 7 different clonal selections (Delpitiya 1, Hatharaliyadda two, Girihagama 4 and Rideegama 1). A higher percentage of success in all stages was observed (82% in 2-week-old, 82.4% in 3-weekd-old, 82.7% in 4-week-old, and 86.5% in 5-week-old, $P<0.05$). The differences of grafting success between the four stages and the clones were not significant.

Two different storage systems of scion (i) packed in sealed polythene sleeves and (ii) in a 'regifoam' box with moist coir dust were compared in the third experiment. A significantly higher percentage of grafting success was obtained with scions stored in moist coir dust (71.1%) than in 2' wide polythene sleeves (54.2%; $P<0.05$). Grafting success was significantly reduced ($P<0.05$) with the increase of storage time (80% in same day grafting, 70% after 1 day, 56.5% after 2 days and 48% after 4 days of storage.

The results of the study indicated the feasibility of grafting of high yielding clonal selections of nutmeg. Further studies are necessary to evaluate the performance of the grafted plants in the field.

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