

GROWTH AND TAPPABILITY OF RUBBER TREES PRODUCED FROM VARIOUS PLANTING MATERIALS

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The results of two studies on planting materials raised by different budding techniques are discussed. Modified young-budded polybag plants of RR11 105 were field-tested at 11 locations in the traditional rubber growing tract of Kerala extending from Thamarassery in Kozhikode District to Punalur in Kollam District, in comparison with conventional brown (eight locations) and green-budded polybag plants (three locations). Both the test and control saplings were raised in the holdings during the planting season of 2002 in compact blocks with plot size varying from 250 to 500 plants, following standard practices. Direct-seeded bud-grafted plants grew at a faster rate soon after field planting than budded stumps. However, after seven years of growth, the modified young buddings were comparable in girth and tappability with brown-budded stumps in five out of eight locations, and with green-budded stumps in all the three locations. Significantly higher girth seen in young budding in two out of eight locations might be due to significant difference in the initial quality of planting materials. Data show that differences in initial girth between modified young-budded plants and brown-budded plants get reduced over time. It appears that commercial value of young budding as a method of propagation is not superior to conventional brown and green buddings. Another experimental planting at Rubber Research Institute of India also revealed that girth and tappability of trees that originated from brown, green and modified young budding techniques were statistically on par at the time of opening.

From the experiments in holdings and from the statistically laid out trial, it is inferred that, with the adoption of uniform and scientific agromanagement practices, girth attainment and immaturity period of planting materials that originate from different budding techniques within the same clone are comparable.

Keywords: Brown buddings, Green buddings, *Hevea brasiliensis*, Modified young buddings, Propagation

INTRODUCTION

Rubber plants were first bud-grafted in 1916 using the technique of brown budding, which made vegetative propagation commercially viable in the species by way of the advantages of better uniformity in vigour and yield over seedling rubber. In brown budding, buds from one-year-old shoots are grafted onto rootstocks of more

or less similar age. By 1936, this technique was widely practised by the estate sector and smallholdings world over. Later, the green budding technique was introduced in 1960, where 2-8-month-old stock plants were grafted with buds taken from 6-8-week-old green shoots (Hurov, 1960). The major advantage of green budding technique is reduction in rootstock nursery time by about