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PROMISING HIGH YIELDING CLONES OF *HEVEA BRASILIENSIS* EVOLVED BY ORTET SELECTION PROGRAMME IN CENTRAL KERALA

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Forty two ortets selected from a large estate in Central Kerala were evaluated during the first five years under tapping in a smallscale trial. The parameters evaluated include yield, girth and timber attributes. Eight promising primary clones were selected from the estate. Three top ranking clones *viz*. Cy O 48, Cy O 41 and Cy O 35 recorded a mean yield of 67.7, 64.3 and 60.4 g $t^{-1}t^{-1}$, respectively and they were significantly superior in yield to that of RRII 105 with above average bole volume. Among these, Cy O 48 was the most promising selection in terms of yield, vigour and bole volume. Three ortets noted for high yield and high girth increment rate on tapping were Cy O 31, Cy O 43 and Cy O 48. The superiority of ortets with respect to yield and secondary characters is discussed in detail, giving emphasis to the eight final selections based on rubber yield.

Keywords: Bole volume, Immaturity period, Ortet selection, Primary clones

INTRODUCTION

The primary objective of any *Hevea* breeding programme is to develop high yielding clones combined with desirable secondary attributes. Mother tree or ortet selection is one of the oldest methods of crop improvement in rubber. It is a method of mass selection of individual genotypes by screening extensive areas of seedling population representing wide genetic variability. The elite mother trees are further cloned and evaluated, leading to the release of 'primary clones'. Rapid strides in ortet selection were made in Indonesia and Malaysia as early as 1920s and the resultant primary clones have recorded 150 per cent yield improvement over the original unselected population (Khoo *et al*., 1982). Tjir 1, Gl 1, PB 28 *etc*. are some of the popular primary clones in India. Subsequently, popular clones such as PB 28/59, GT 1 and PB 280 were released for commercial cultivation. Very recently Malaysian Rubber Board has recommended the RRIM 2000 series clones among which RRIM 2027, evolved through ortet selection, is recognized as a promising latex timber clone (Anonymous, 2003).

In India, systematic screening, selection and evaluation of primary clones were started during the 1950s. Among the 43 primary clones of RRII 1 series selected from

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