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EVALUATION OF COMMERCIAL YIELD PERFORMANCE OF *HEVEA* CLONES : AN ALTERNATIVE APPROACH

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An alternative approach to evaluate yield performance of *Hevea* clones was devised by developing a commercial yield performance index (CYPI) which incorporated certain yield characteristics and managerial factors which influence the relative profitability either directly or indirectly. The incorporated variables are extent of immature phase, share of field coagulum (FC) in yield, tapping intensity, yield per tree, number of trees tapped per unit area and the pattern of yield profile. The CYPI was worked out for 19 clones for the first 10 years of tapping and compared with mean yield indices (MYI). Except in three clones *viz.*, GT 1, PB 217 and PB 5/51 the relative positions in ranking according to MYI got shifted when ranked according to CYPI. Though RRII 105 obtained the highest MYI, the first rank with regard to CYPI was achieved by PB 260 by virtue of its relatively early tappability. The shifts in rankings were compared and the contributing factors were identified. The CYPI along with other characteristics such as susceptibility to diseases and tapping panel dryness, proneness to natural damage, timber yield, etc. may be considered in the comparative evaluation of clones.

Key words : Commercial yield, *Hevea*, Performance indices, Profitability, Yield characteristics.

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INTRODUCTION

Selection of planting material is a crucial farm management decision affecting profitability especially in perennial crops, as in *Hevea brasiliensis*, compared to annual crops, due to higher initial investment, longer gestation period and longer economic life span. Commercial yield performance of prominent *Hevea* clones has to be continuously evaluated to aid meaningful choice of cultivars. The yield performance of planting materials are monitored in major natural rubber producing countries on the basis of field-wise data collected from large estates. The Rubber Research Institute of India (RRII) has been undertaking such commercial yield evaluation since 1974. At present, there are 45 participating estates covering an area of nearly 28000 ha. The participating estates submit a monthly return in a specified form with field-wise information on year of planting and tapping, area and number of trees under tapping, tapping system followed, monthly yield with break-up of latex and field coagulum (FC) on a dry rubber basis, *etc.* Four reports have so far been published on yield performance of planting materials for different phases and its comparative evaluation (Krishnankutty *et al.*, 1982; Krishnankutty and Sreenivasan, 1984; Joseph and Haridasan, 1990; Joseph *et al.*, 1997).