EVALUATION OF *HEVEA* CLONES WITH SPECIAL REFERENCE TO GIRTH POTENTIAL ON ASSORTED ROOTSTOCKS

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Twelve monoclonal blocks comprising pipeline clones and popular clones were evaluated. Early growth parameters were recorded when the trees were three years old. In the 12 blocks evaluated, P 70, and RRII 429 recorded the highest girth (24.0 cm each) and the highest stem volume (0.01m^3 each). RRII 414 and RRII 417 recorded the second highest girth (23.0 cm each) followed by pipeline clones P 21 and P 26 (22.0 cm each). Stem volume was 0.009 m^3 each in RRII 414 and RRII 417 followed by P 21, P 26, RRII 422 and PB 330 (0.008m^3 each). Girth of RRII 105, RRII 414, RRII 417, RRII 430, P 26 and P 70 showed as positively influenced by assorted rootstocks compared to RRII 422, RRII 429, PB 330, P 21, P 64 and P 81. A general negative influence of assorted rootstocks on the clones was observed in relation to the concept of girth potential of clones. In the early evaluation of these monoclonal blocks, P 70, P 21 and P 26 were promising genotypes for growth from among the pipeline clones.

Key words: Clone evaluation, Girth groups, Girth potential, *Hevea brasiliensis*, Natural rubber, Stem volume

Performance of rubber clones in block trials in the early immature phase was evaluated in the study. Evaluation in block trials generates highly reliable information owing to the large number of trees per clone. Data generated from block trials are useful in further validation of clonal traits already characterized from the earlier trials. Various traits of the modern clones of the RRII 400 series have been reported over the years (Licy *et al.*, 1992; 2003; Meenakumari *et al.*, 2011; Mydin and Mercykutty, 2007). Data from the early immature phase is useful in generating preliminary information on important clonal traits. Multiplication of promising *Hevea* progenies with outstanding attributes is accomplished by means of bud-grafting. Although the original performance of the progeny is largely retained in the scions of the bud-grafted plants, studies undertaken on stock-scion interactions have shown that the root stocks have significant impact on scion in terms of yield and growth (Cardinal *et al.*, 2007; Premakumari *et al.*, 2002). The present study attempts to evaluate the performance of *Hevea* clones in block trials with emphasis on clonal performance on assorted rootstocks.

Block trials with 12 *Hevea* clones were established at Chithalvetty estate of the State Farming Corporation of Kerala, India in 2016. Pipeline clones (P 21, P 26, P 64, P 70

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