**Early Characterization of Selected *Hevea* Genotypes Using Morphological and Physiological Parameters to Accelerate the Clone Recommendation**

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Rubber, *Hevea brasiliensis* is a perennial crop grown for latex. The long breeding cycle of rubber (25-30) years is the major limiting factor for genetic improvement. The objective of this study was to analyze morphological and physiological parameters to perceive the precise selection of genetically superior genotypes at an early stage of the *Hevea* breeding cycle. 2011HP 42, 2011HP 202, 2011HP 297 and 2011HP 300 genotypes were obtained from a 2011 hand pollination programme and planted at Eladuwa Estate, Kalutara as an Estate Collaborative Trial. The recommended clone RRISL 2006 was taken as a control clone. Girth, bark thickness, first branching height, photosynthesis rate, chlorophyll content, stomatal conductance and leaf area were measured in 12 randomly selected plants from each genotype. The principal component analysis and cluster analysis were performed to identify the diversity and promising parameters respectively. The clusters showed over 70% of similarities. Accordingly, 30% of variation among the genotypes indicated substantial diversity among the selected genotypes. Three potential parameters (girth, bark thickness, stomatal conductance) were identified as early selection criteria. Two genotypes (2011HP42 and RRISL 2006) were significantly different from the rest of the other genotypes. Precise selection at an early stage is supported and confirmed by adding more yield parameters to the evaluation process.

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