

# PERFORMANCE OF SOME HEVEA CLONES UNDER THE COLD PRONE CLIMATE OF SUB-HIMALAYAN WEST BENGAL

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Multidisciplinary evaluation of eleven clones of *Hevea* was initiated in 1993, at Nagrakata a cold prone Sub-Himalayan region of West Bengal. Among the clones evaluated RRII 208 and Haiken 1 exhibited the highest girth at the time of panel opening closely followed by the check clone RRIM 600. However, clones RRIC 104 and SCATC 93/114 showed maximum girth increment after twelve years of tapping. Haiken 1 and RRII 208 were the top rankers in terms of annual yield closely followed by PB 280 and RRIM 600 over the twelve years of tapping period. Haiken 1 ranked first in BO-1 and BI-1 panels followed by PB 280 whereas RRII 208 ranked first in BO-2 panel followed by Haiken 1 in terms of panel wise yield. The performance of these clones in terms of TPD was the minimum in PB 235 followed by Haiken 1 and RRII 300. In general, *Oidium* incidence was observed in all the clones but the lowest level was recorded in Haiken 1, RRII 208, SCATC 93/114 and RRIM 600. The intensity of wind damage varied from 0-18% among the clones. Shoot biomass accumulation was higher in SCATC 94/114 followed by Haiken 1 while the highest clear bole volume was recorded in RRII 308 followed by RRII 300 and PB 235. Results of this study revealed that among the 11 clones Haiken 1, RRII 208 and PB 280 were better adapted to the cold prone climate and found to be the most suitable clones for this region.

**Keywords:** Clone, Cold stress, *Hevea*, Rubber, Yield

## INTRODUCTION

Agro-climatically best suited lands for natural rubber (NR) cultivation in almost all major NR producing countries are nearly saturated and existing rubber plantations in the world will not be sufficient to meet the increasing global demand of NR. Supply of NR from the traditional areas is also more

or less stabilized. Therefore, NR cultivation is being extended to less suitable lands in non-traditional areas (Sethuraj and Jacob, 2012). Rubber (*Hevea brasiliensis* Muell. Arg.) has emerged as a new plantation crop for cultivation in certain traditionally tea growing areas also i.e., Terai and Dooars of Sub-Himalayan West Bengal (Das et al., 2013). The topographic variation of this