

PERFORMANCE OF POLYCLONAL SEEDLINGS OF DIVERSE ORIGIN IN NORTHERN WEST BENGAL

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Polyclonal seedling trees raised from seeds collected from diverse environments *viz.* Kamrup (Assam), Jalpaiguri (West Bengal), Tura (Meghalaya) and Kanyakumari (Tamil Nadu) were evaluated under the agroclimate of Sub-Himalayan West Bengal. Girth and test tap yield of seedlings from various seed sources was not significantly different during the initial four years of tapping. Overall, 21 per cent seedling trees showed more than 50 g t⁻¹t⁻¹ among all the tapping trees. Trees showing above average yield were more in seedling trees raised from seeds of Kanyakumari followed by Tura. However, in case of seedlings showing yield above 50 g t⁻¹t⁻¹, it was high in seedlings sourced from Guwahati. Five seedling trees showed high girth and yield which were selected for further studies to evolve new clones for North East India.

Key words: *Hevea brasiliensis*, Natural rubber, North East India, Polyclonal seedlings

INTRODUCTION

Natural rubber extracted from *Hevea brasiliensis*, is a strategic raw material of industrial importance. In order to widen the genetic base of planting material, new clones are developed by classical breeding programme which covers 20-30 years. Hence, shortening of breeding cycles is mandatory so that the final product will be in hand within a short span of time. One of the steps of such measure is, selecting trees from seedling population with preferable characters and screening for further evaluation. Screening for selecting mother trees (ortets) was conducted in North East India since 1987 (Sasikumar *et al.*, 2001;

Mondal *et al.*, 2006). In the present study, seeds were collected from different agroclimates and their performance was evaluated in the agro-climatic conditions of Sub-Himalayan West Bengal. The study was formulated with an objective of studying the influence of origin of seed source, if any on performance of seedlings and identifying suitable genotypes adapted to the agroclimate of Sub-Himalayan West Bengal. This would also help in generating region-specific planting material.

MATERIALS AND METHODS

In an attempt to study the performance of polyclonal seedling trees, a trial was

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