

EARLY PERFORMANCE OF SOME GERMPLASM ACCESSIONS IN DOOARS REGION OF WEST BENGAL

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Twenty one germplasm accessions of *Hevea brasiliensis* from the 1981 IRRDB germplasm collection from three provenances in Brazil were evaluated for their performance under cold climate in Dooars region of West Bengal, India in comparison to four cultivated clones developed in Asia from the original 1876 Wickham collections. In general, the Wickham clones performed better in growth and survival in the juvenile stage. Among the germplasm accessions those from Acre province showed better growth while survival was more for those from Rondonia.

Key words: Germplasm, *Hevea brasiliensis*, Variability, West Bengal.

INTRODUCTION

The cultivated *Hevea brasiliensis* in Asia and elsewhere developed from the 1876 Wickham collections have very narrow genetic base (Schultes, 1977) which was further narrowed by intensive selection for yield (George, 1998). To broaden the gene pool of *Hevea brasiliensis* a collection of germplasm from provenances namely Acre, Mato Grosso and Rondonia in Brazil was organized by IRRDB and the collected accessions were distributed to countries including India. In India the evaluation of germplasm is carried out both in the traditional rubber growing region (South West) and in the nontraditional region (North East). The reports from traditional region indicate variability in vigour, juvenile yield and some morphological characters (Annamma *et al.*, 1986; 1988) and has identified some desirable traits (Abraham *et al.*, 1992; Madhavan *et al.*, 1996).

The objective of the present study was to evaluate the performance of some of the wild germplasm accessions in comparison to popular clones under the agro-climatic condition of Dooars area in Northern West Bengal, a nontraditional region. The study was conducted at the Regional Experiment Station of Rubber Research Institute of India at Nagrakatta (26°38'N; 88°19'E; 69m MSI) in Jalpaiguri District of West Bengal. The station receives mean annual rainfall of 3300 mm, well distributed over May to September and the mean temperature ranges from 16.5 to 27.8°C.

The trial was located on plain land. The soil is sandy loam with sand, silt and clay contents of 65, 15 and 20 per cent respectively. The soil pH ranges from 4.62 to 5.05. The experiment was laid out in completely randomized design with 2 replications of 21 germplasm accessions (6 Acre/AC; 11 Rondonia/RO; 4 Mato Grosso/MT)