

## EARLY PERFORMANCE OF WILD *HEVEA* GERMPLASM IN THE SUB-HIMALAYAN CLIMATE OF WEST BENGAL

Gitali Das, R.S. Singh\*, G. C. Mondal\*\*, D. Chaudhuri\*\* and M. A. Nazeer\*\*\*

Rubber Research Institute of India, RES, Nagrakata, Jalpaiguri - 735 225, West Bengal, India

\*Rajendra Prasad Agriculture University, Pusa, Samastipur, Bihar, India

\*\*Rubber Research Institute of India, RRS, Guwahati - 781 006, Assam, India

\*\*\*Rubber Research Institute of India, Kottayam - 686 009, Kerala, India

Das, G., Singh, R.S., Mondal, G.C., Chaudhuri, D. and Nazeer, M.A. (2009). Early performance of wild *Hevea* germplasm in the sub-Himalayan climate of West Bengal. *Natural Rubber Research*, 22(1&2): 133-139.

The performance of 21 wild *Hevea* germplasm accessions was evaluated under biotic and abiotic stress conditions in the sub-Himalayan West Bengal at the Experimental Station of Rubber Research Institute of India, Nagrakata, Jalpaiguri, West Bengal. Assessment of these genotypes for yield and other secondary characters has indicated superiority of one accession, RO 5363, for yield. Both test tap yield for three years and normal tapping for two years showed stability. The rest of the germplasm accessions were inferior to the control clone RRIL 105. The accession RO 3172 was the most vigorous and had the highest girth, girth increment and number of tappable trees, though the yield was very low. The accession AC 1950, though showing fairly good yield, did not have good bark thickness and girth. Only three accessions showed tolerance to *Oidium* leaf disease, even after sulphur dusting. Selected genotypes might be used for future breeding programme.

**Keywords:** Climate, Clone, Germplasm, Growth, *Hevea*, Selection, Yield.

### INTRODUCTION

The genetic base of cultivated *Hevea* in the East is presently limited to the few seedling trees survived from the original collection from the Amazonian rain forests in Brazil (Wycherley, 1968; Allen, 1984). From this small base, remarkable yield improvement has been achieved (Varghese, 1992). However, development of crop varieties tolerant/resistant to different biotic and abiotic stresses is inevitable in achieving the twin goals of high crop productivity and

of sustainability in adverse situations. The wild germplasm from the Amazon basin was introduced into India for widening the genetic base of rubber.

Rubber cultivation has been extended to non-traditional and marginal lands like the north-eastern states, where it is exposed to various biotic and abiotic stress situations. Thus, development of genotypes suitable for specific regions attains importance. With this in view, a few wild *Hevea* germplasm accessions were planted in Nagrakata,

Correspondence: Gitali Das (Email: gitali\_das@rediffmail.com)