

## PROMISING *HEVEA BRASILIENSIS* CLONES FOR THE SUB-TROPICAL CLIMATE OF MEGHALAYA

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Yield potential of eighteen clones of *Hevea brasiliensis* (Wild.ex Adr. de Juss.) Muell. Arg., was evaluated under the sub-tropical climatic conditions of Meghalaya, India, a non-traditional area for rubber cultivation. In one trial, after nine years of tapping, the highest yield was recorded for RRIM 600 followed by RRII 105 on both BO 1 and BO 2 panels. In the other trial, after eight years of tapping, the highest yield on BO 1 panel was for PB 311 followed by RRII 208, RRII 105 and PB 310 and on the BO 2 panel the highest yielding clone PB 311 was followed by RRII 105, PB 310 and RRII 208. Yield during January to August was low being 40 per cent of the annual yield. Incidence of tapping panel dryness was less for RRIM 600. Concentration of nitrogen, phosphorus and potassium was high in the leaves of RRIM 600 and PB 311. Clones such as RRIM 600, PB 311, RRII 105, PB 235, PB 310, RRII 203, RRII 208 and RRII 118 performed well in Meghalaya.

Key words: *Hevea brasiliensis*, Meghalaya, Nutrients, Sub-tropical climate, Tapping panel dryness, Yield.

### INTRODUCTION

*Hevea brasiliensis* (Wild.ex Adr. de Juss.) Muell. Arg., the major source of natural rubber, was introduced to non-traditional and sub-tropical regions of India to meet the increasing demand for natural rubber as there is little scope for further expansion of rubber plantations in the traditional areas. These areas offer a wide range of weather and climatic conditions. Different clones of *H. brasiliensis* were evaluated in the non-traditional areas of North East India to select the ones suitable for these agroclimatic areas. Even though reports on the performance of various *H. brasiliensis* clones in terms of growth and yield are available from other

parts of the North East India (Sethuraj *et al.*, 1989; Meenattoor *et al.*, 1991; Vinod *et al.*, 1996; 2000; Priyadarshan *et al.*, 1998; 2002; Mondal *et al.*, 1999; Reju *et al.*, 2000; 2001; 2004; Dey *et al.*, 2004 Gohain *et al.*, 2004), long-term yield evaluation of different clones have not been done for Meghalaya. Therefore, in the present study, eight to nine years data on yield from eighteen clones were analyzed to find the yielding behavior of *H. brasiliensis* clones at Tura (latitude 25° – 26°; longitude 90° – 91°; altitude 600 m above msl), Meghalaya.

### MATERIALS AND METHODS

Two clone evaluation trials were laid