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YIELD PERFORMANCE OF CLONE RRII 105 UNDER LOW FREQUENCY TAPPING IN BO-2 AND BI-1 PANELS

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In India, cost of production of natural rubber is high due to undulating topography, less favorable agroclimate and additional cultural practices. Reduction in cost of production by adopting low frequency tapping (LFT) with judicious application of yield stimulants like Ethephon is one of the approaches to make rubber cultivation more cost effective. An experiment was laid out in the Experimental Farm Unit of Rubber Research Institute of India, Kottayam, Kerala to compare the long term yield response of clone RRII 105 to low frequency tapping in BO-2 and BI-1 panels. Cumulative dry rubber yield over eight years under d3 and d4 tapping frequency with stimulation is comparable to unstimulated alternate daily tapping (d2). There was no reduction in yield from the renewed bark compared to virgin BO-2 panel. Total tapping days during the study period for d2, d3 and d4 frequencies of tapping were 1149, 780 and 598 days, respectively. Thus by adopting d3 and d4 frequencies of tapping, requirement of tappers can be reduced by 32% and 48% respectively, compared to alternate daily (d2) tapping. Benefits of adopting LFT are sustainable high yield and extended period of tapping on the same panel leading to longer economic life of rubber trees. Adoption of LFT is also expected to reduce the impact of the scarcity of skilled tappers in rubber plantation sector.

Keywords: Ethephon, *Hevea brasiliensis*, Low frequency tapping, Stimulation, Yield

INTRODUCTION

Hevea brasiliensis Muell. Arg. (Para rubber) is the most important source of natural rubber (NR). India holds the fourth position in NR production and productivity in India is the highest in recent years. Land productivity of rubber plantation is governed by factors like clone, stand per hectare and intensity of tapping practices *etc.* The recent increase in NR price has brought bright hope to the rubber industry. However, increase in the cost of production and shortage of skilled tappers haunting the NR industry in India. In some other Asian countries tapping alone accounts for more than 70% of the cost of production of NR (Vijayakumar *et al*., 2005). India and other rubber growing countries are facing shortage of skilled tappers and this problem is likely to aggravate in future. In such situations, grower has to pay very high wages to attract the tappers or they leave the trees untapped. Increase in cost of production and unavailability of skilled

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