

RESPONSE OF LOW FREQUENCY CONTROLLED UPWARD TAPPING WITH YIELD STIMULATION IN CLONE RR II 118

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The present study was taken up to compare yield response of continuous Low Frequency Controlled Upward Tapping (LFCUT) from old and senile rubber trees of clone RR II 118 at Central Experiment Station of Rubber Research Institute of India. The trial was conducted for six years in the virgin bark of high panel above the renewed panels. Mean dry rubber yield over six years period under S/4 d3 frequency was comparable to S/4 d4, S/3 d4 and S/3 d7 frequencies of tapping. An increase in yield of 23 and 52 per cent was observed in the first year of high panel tapping under S/3 d4 with once in six week stimulation and S/3 d7 with once in three weeks stimulation over S/4 d3 with once in six weeks stimulation. However, considering the overall mean for six years, yield increase of 26 per cent could be obtained under S/3 d7 with once in three weeks stimulation than S/4 d3 with once in six weeks stimulation. By adopting d4 and d7 frequencies of tapping, requirement of tapper can be reduced by 25 and 51 per cent, respectively, compared to third daily tapping (d3), with the additional benefits of long term sustainable yield and longer economic life at reduced cost. Practice of continuous controlled upward tapping (CUT) is ideal for assured sustainable rubber production even from trees having unsuitable renewed basal panel, due to high incidence of tapping panel dryness (TPD).

Key words: Controlled upward tapping, *Hevea brasiliensis*, Low frequency tapping, Natural rubber, Yield stimulation

INTRODUCTION

Hevea brasiliensis (Wild ex A. Juss.) Muell. Arg. (Para rubber) has been accounted as the most important source of natural rubber (NR). India stands sixth in production and second in consumption of NR among the major rubber producing and consuming countries of the world. NR plantation industry in India is facing constraints due to low rubber prices, spiraling cost of production and shortage of skilled tappers.

In India, cost of production is also high due to undulating topography, agro climate and other cultural practices. Cost of tapping accounts for major part in the cost of production of NR and in some countries, tapping alone accounts for more than 70 per cent of the cost of production of NR. India's productivity level has declined from the global position of first (1876 kg ha⁻¹) to third (1450 kg ha⁻¹) in the recent past. The continuous fall in NR price resulted in sharp decline in NR production as growers' left