

RESPONSE OF *HEVEA BRASILIENSIS* (CLONE RR II 105) TO LOW FREQUENCY CONTROLLED UPWARD TAPPING (LFCUT) UNDER DIFFERENT PANEL CHANGE SYSTEMS

K. Karunaichamy and R. Rajagopal

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

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Natural rubber (NR) plantation industry in India is facing constraints due to low rubber prices, spiraling cost of production and shortage of skilled tappers. Practice of Controlled Upward Tapping (CUT), is ideal under Indian conditions for assured sustainable rubber production from old and senile rubber trees. An experiment was conducted in the Experimental Farm Unit of Rubber Research Institute of India, Kottayam, Kerala to compare yield response of clone RR II 105 to Low Frequency Controlled Upward Tapping (LFCUT) under different panel change systems for eight years in the virgin bark of high panel above the renewed panels. Mean dry rubber yield over eight year's period under d4 and d7 frequencies of LFCUT with periodic panel change was comparable to third daily tapping (d3). Yield increase of 38 per cent was observed in the first year under d3 and d4 frequencies of high panel tapping over the basal renewed panel tapping. However, considering the overall mean of eight years, yield increase of 11 per cent could be obtained under LFCUT over the basal panel tapping. By adopting d4 and d7 frequencies of tapping, requirement of tapper can be reduced by 25 and 49 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.

Keywords: Controlled upward tapping, Ethephon, Low frequency tapping, Natural rubber, Panel change, Yield performance

INTRODUCTION

Hevea brasiliensis Muell. Arg. (Para rubber) the most important source of natural rubber (NR), is harvested from rubber trees by tapping, a process of thin shaving of bark. India stands on sixth position in total production of NR among the major rubber producing countries. In India, cost of production is high due to undulating topography, agro climate and high labour

wages. Cost of tapping accounts for a major share in the cost of production of natural rubber. In some countries, tapping alone accounts for more than 70 per cent of the cost of production of NR. India and other rubber producing countries are threatened by low rubber prices and inadequate supply of skilled tappers. Under these circumstances, grower has to pay more wages to attract the tapper to tap their trees or leave it untapped due to unavailability of skilled tapper. In