

EVALUATION OF VERTICAL TAPPING IN NATURAL RUBBER

R. Rajagopal and K. Karunaichamy

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

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Natural rubber is obtained commercially from *Hevea brasiliensis* by the process of controlled wounding called tapping. Optimising tapping systems with appropriate dose and frequency of ethephon application can be one of the approaches to address shortage of skilled tappers and can help in realising potential yield from rubber trees. In the present scenario, yield stimulation technology has been perfected and advocated to get promising yield under lower frequencies of tapping, from mini cuts or from punctures with gaseous / ethephon stimulation. An experiment with vertical tapping cuts of 22 and 10 cm cut lengths with different levels of yield stimulation with 2.5 per cent ethephon was conducted for four years to examine the scope and feasibility of vertical tapping as a latex harvest technology tool for crop extraction of mature rubber trees of clone RR1105. Initial results from the study indicated promise of adoption of vertical tapping of 22 cm (with ET 2.5 % 12 or 24 rounds per year) or 10 cm (with ET 2.5 % 24 or 36 rounds per year) with yield level at par with standard recommended crop harvesting practice (S/2 d3 6d7 ET 2.5% 3 rounds per year) without deleterious effect. The system is also having the additional advantage of tapping one panel for two years unlike in half spiral downward tapping panel marked for one year which can be tapped only for a year.

Key words: *Hevea brasiliensis*, Latex harvest technology, Natural rubber, Vertical tapping, Yield stimulation

INTRODUCTION

After evaluation of different tapping systems, the present tapping system of half spiral cut was evolved. Before the evolution of present day tapping system (half spiral cut from high left to low right at 30 degree slope) various types of tapping cuts were attempted (Dijkman, 1951). The yield per unit length of tapping cut was less in most of the tapping systems tried and were abandoned in due course. An ideal tapping system is one which gives optimum yield from trees with minimum excision of bark, lowest interference with health of trees, their

capacity for sustainable rubber production at lower tapping cost and less incidence of tapping panel dryness (TPD) formerly known as brown bast (Baptiste, 1962). However in the present scenario, yield stimulation technology has been perfected, advanced and advocated to get promising yield from lower frequencies of tapping (LFT), mini cuts, reduced spiral cuts or even from punctures with gaseous or ethephon stimulation (Gohet *et al.*, 1991; Thanh *et al.*, 1998; Rajagopal *et al.*, 2000; 2004; Thomas *et al.*, 2002; Vijayakumar *et al.*, 1997; 2001; 2003; 2005; Sivakumaran, 2002;