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TAPPING PANEL MANAGEMENT IN RUBBER (*HEVEA BRASILIENSIS*) IN NORTH EAST INDIA

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Various tapping panel management strategies for better yield, growth and other related aspects of rubber under different tapping systems were investigated in north-eastern region of India. Different systems of tapping like reduced spiral cut, double cut alternate panel tapping (DCA), low frequency tapping (LFT) and controlled upward tapping (CUT) were experimented in various clones at different ages of trees. The yield per tap was increased with decrease in tapping frequency. Yield per hectare was high in S/2 d2 system of tapping. However, d3 frequency with stimulation was comparable with d2 system. Tapping panel dryness was higher in S/2 d2 system of tapping than others. Reduced spiral cuts of S/3 or S/4 in d2 system of tapping with stimulation resulted in increased yield. Higher yield was observed in reduced cuts of S/3 in double cut alternate panel tapping system than S/4 DCA system of tapping. Yield under DCA was at par with conventional system, but panel management after initial five years on exhaustion of virgin bark is very difficult. Hence, DCA is not sustainable. For all the clones, different systems strongly influenced the annual yield. Productivity of downward tapping was lower on renewed bark of basal panel than controlled upward tapping with stimulation on high panel. There was only small change in girth increment in different systems of tapping. Tapping systems such as S/3 d2 with three annual stimulations (ET 2.5%) or S/2 d3 with five annual stimulations (ET 2.5%) and two months tapping rest during February-March are ideal for sustainable yield, reasonable tree growth and low TPD incidence for NE region.

Keywords: *Hevea brasiliensis*, Low frequency tapping, North East India, Stimulation, Tapping panel dryness, Tapping systems, Yield

INTRODUCTION

The rubber (*Hevea brasiliensis*) cultivation is being extended to non-traditional belt of North East India due to non-availability of land in traditional rubber growing regions. The north-eastern states offer great potential for natural rubber production. This region had 71840 ha rubber in 2007-08 out of which 70% of area was under tapping. The share of smallholdings is 80% and rest is owned by state agencies. The popular clone is RRIM 600. The productivity in this region is 1500 kg/ha, which is lower than the national average. The crop harvesting practice is an important factor determining the yield in *H. brasiliensis*. Various factors like clone, availability of tappers, tapping panel, labour wage, rubber price, *etc.* influence in the formulation of the tapping system.

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