

RESPONSE OF SOME *HEVEA* CLONES TO PERIODIC TAPPING SYSTEMS

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The objective of this experiment was to study the response of recommended *Hevea* clones in Indonesia to periodic tapping systems. Cumulative yield for 5 years of tapping of periodic tapping systems (1/2S d/1 5d/7 2m/3 and 1/2S d/1 6d/7 m/2) were comparable with the conventional system of CT 1; but lower for PR 300 and AVROS 2037, and higher for RRIM 600. For PR 261, only 1/2S d/1 5d/7 2m/3 resulted in a higher yield. Girth increment was slightly retarded in periodic systems, especially for PR 300. Growth of renewed bark was not affected, but dry rubber content of latex was slightly lowered. Intensity of dry bark incidence depended on clonal susceptibility. PR 261 seemed to be prone to bark dryness. Periodic tapping systems could be recommended as alternatives to the conventional system for the clones GT 1 and RRIM 600. RRIM 600 showed the best response to periodic systems.

Key words : *Hevea*, Periodic tapping system, Indonesia.

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INTRODUCTION

Rubber smallholders in some regions of Indonesia also cultivate food crops in swamp areas which are far away from the rubber holdings. This causes farmers to tap rubber frequently in some periods and rest the trees when farmers are engaged in growing food crops. The tapping system in this situation is called 'periodic system'.

In Burma, Thailand, Vietnam and Malaysia, the tapping rest period was inevitable due to intense rain or drought which made tapping impracticable (Paardekooper, 1989; Husin *et al.*, 1984). Resting period in conjunction with seasons may boost yield on resumption of tapping.

Martin (1969) found the beneficial effect of resting period on yield of some clones. However, clones show different responses to resting period. For example, in Ivory Coast, resting period during the drought (February-March) resulted in better yield of Tjir 1. This clone is susceptible to drought according to Devakumar *et al.* (1988). In contrast, resting period did not affect yield of ICB 1320 which is insensitive to drought. Sivakumaran *et al.* (1991) found that yield of PR 261 and PB 252 with periodic system in combination with ethephon stimulation (1/2S d/2 9m/12 ET 2.5% Lam 9/♥) were similar to yield under the conventional tapping system.

Selection of clones in Indonesia is