

YIELD RESPONSE OF LOW FREQUENCY UPWARD TAPPING BY INCREASING THE TAPPING CUT LENGTH IN *HEVEA BRASILIENSIS* (CLONE GT 1) IN SOUTH-EASTERN CÔTE D'IVOIRE

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Rubber tree cultivation is facing a problem of availability of tapping labour. One way to overcome this constraint is the development of low intensity tapping system with use of yield stimulant (ethephon), reducing the need for tappers. Thus, a study was conducted in Côte d'Ivoire on low frequency tapping system compensated for, not by stimulation, but by an increase in the length of tapping cut. The standard tapping in S/4U d3 6d/7 was compared to the tapping in S/2U d6 6d/7 in clone GT 1. The results showed that although the tapping in S/2U d6 6d/7 causes losses of rubber yield by 13 and 25 per cent per tree and per hectare respectively, it generates gains in yield per tree and per tapping by 75 per cent and in net operational incomes by 3 to 4 per cent. Moreover, the tapping in S/2U d6 6d/7 has no significant impact on the physiological profile and the tapping panel dryness of trees. This technology can therefore be an alternative to the standard upward tapping in order to remedy the problem of availability of tappers and enable to palliate a deficit of 39 per cent of the needs for tappers without increasing the level of stimulation.

Keywords: Côte d'Ivoire, Length of tapping cut, Low frequency tapping, Tapping labour, Yield

INTRODUCTION

The cultivation of *Hevea brasiliensis* (Euphorbiaceae) which started in the Amazon basin, the current Brazil, two centuries ago, has now become an important economic activity around the world, as it generates huge incomes. Main source

of natural rubber used in various fields, particularly in the tyre industry (Compagnon 1986; Anonymous 1, 2009), the cultivation of rubber tree faces the problem of availability of tapping labour. Indeed, latex harvesting is done through tapping which requires a large tapping labour thus