

**PERFORMANCE OF DIFFERENT RAINGUARD TYPES ON RUBBER  
[*HEVEA BRASILIENSIS* (A. JUSS.) MUELL. ARG.]**

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Rubber tree in general, is tapped for latex once it has reached a tappable girth. Tapping is a specialized method by which, controlled wounding of the bark is done to open the latex vessels to harvest latex from the rubber tree. Due to the rain effect, tapping panel remains wet for long periods even after rain has ceased. It prevents the tapping of rubber trees during the rainy season and also leads to the loss of normal tapping days and infections in the tapping panel. Wetting of tapping panels can be minimized with the use of rain guards. Though there are many new technologies available to increase the production, the only rapid way to increase the production by about 20-30 % within a couple of months is the use of rain guards. This study was focused to compare the performance of Apron type rainguards which were used in early 1970 with Kissan type and Belgium type rainguards. Randomized Complete Block Design was adopted as an experimental design. Thousand trees with four main blocks were selected for this study. Each tapping block consisted of 250 trees and every main tapping block was sub-divided into four plots. Each tapping block consisted of three rainguard types as well as control. All trees were tapped at the half spiral alternate daily (1/2 S d/2) system with no stimulation during the two months period. Mean numbers of tapping days were recorded for the four treatments. The analysis of variance on rubber yield measured over the experimental period indicated significant differences between the types of rainguard ( $P=0.05$ ) when girth is considered as a covariate. The Kissan type (K) gave the highest yield followed by the Apron type (AP) though did not differ significantly. The yields of both K and AP differ significantly with Control (C). However, the yields observed for Belgium type (BC) and C were not statistically different. Sealant cost and the polythene cost were the major cost components of rainguards which is about 65 % of total cost of a rainguard. At the current price of semisolid sealant (Rs. 125.75 /kg), use of AP and K types is more profitable than Belgium type. At current price of polythene (Rs.310 /kg), K type is cheaper than the cost of the AP type. Labour wage for the rainguard per tree is Rs. 11.46 including fixing cost. However, most of the smallholders may not be affected by high labour cost as they could use family labour. A net profit increment of Rs. 23,628 / ha has resulted from the use of AP type rainguard for the two month period, whereas Rs. 24,618 and Rs. 10,550 were gained from K type and Belgium type, respectively. The return on investment is higher in AP and K type rainguards compared to that of Belgium. It is recommended to conduct the study for one year period to account the variability in rainfall and to consider the maintenance cost for rainguard and their shelf lives in estimating the profit.

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