

B-19: Rehabilitation of senile cacao plantations

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Cocoa production in Sri Lanka is declining at a rate of about 1.9% per annum. Cocoa exports have dropped from about 3000 metric tonnes per annum in 1950s to a mere 174 mt in 1996. This low productivity is attributed to the old age of

the existing plantations, poor genetic capacity of the plants grown and prolonged poor management of the lands. Increasing the per acre yield in the existing plantations therefore is the most effective way to increase the cocoa production in Sri Lanka. This could be achieved through a systematic replanting/rehabilitation programme. Therefore this study was carried out in order to select a suitable method to increase the productivity of the uneconomic cacao lands.

A senile cacao plantation at Badalkumbura was selected for this study. Replanting, chupon budding, mature budding and chupon regeneration methods were evaluated. Three improved varieties, namely, SCA6*ICS6, W5/5 and SCA12 were used as the scion material. The design used was split plot with 3 replicates. The results of the experiment showed that the percentage of the replanted plants were higher (96%) compared with chupon regeneration (89%), chupon budding (29%) and mature budding (11%). The percentage establishment and the growth of the variety SCA6*ICS6 were superior to the other varieties. The yield of the chupon budded plants with the variety SCA6*ICS6 was higher (10 pods/tree/year) than replanted cacao (7 pads).

The productivity of the senile cacao plantations could be increased substantially by using various rehabilitation methods. Further combination of rehabilitation methods namely, infilling, replanting, rejuvenating of the existing stand by chupon regeneration and chupon budding could be used for rehabilitation. Improved varieties such as SCA6*ICS6 can be used to increase the productivity. This method is likely to be attractive and acceptable to smallholders since they are assured of some income during the gestation period.