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Rehabilitation of old cocoa plantation at Matale

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Cocoa is one of the important beverage crops having good export potential in Sri Lanka. The export volume was in decreasing order from 3000 mt in 1950 s to 1100 mt in 2003.The presence of unproductive moribund plants in the cocoa plantations is one of the reasons for low national productivity. As there is an increasing demand for cocoa in the world market, the potential for expansion of cultivation is very high. Therefore, rehabilitation of existing old cocoa plantation using improved high yielding materials would be one of the appropriate methods to increase the production of cocoa in medium terms. Therefore, development of a protocol for rehabilitation of senile cocoa estates is the overall objective of this study. This experiment was commenced in Matale (IM3a).Treatments were imposed on a senile cocoa plantation of about 25 years old. Four rehabilitation techniques, namely bud grafting on a naturally sprouting water shoot of an old tree with a chupon bud (T1), replanting of a bud grafted plant originated from fan branch (T2), replanting of a bud grafted plant originated from chupon branch (T3) and bud grafted with chupon originated scion on a chupon branch which emerge after ring bark of an old tree (T4) were practiced. According to the data collected during first 18 months, initial growth of scions is promising .The smallest scion height was observed at T3, but scion girth was almost similar for each treatment. The highest number of branches were found in T2 ($p < 0.05$) and the smallest number of leaves were found inT4 ($p < 0.05$). Overall observations suggested that infilling with bud grafted plants either with fan scion (T2) or a chupon scion (T3) appear to be promising. Continuation of this experiment appears to be worthwhile to develop a protocol in due course.

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