Growth of different cocoa (*Theobroma cacao.* L) Varieties under different age of rubber plantations.

H M P A Subasinghe[1*], H A Sumanasena[2], I H M H B Herath[1] and V H L Rodrigo[3]

[1] *Research Station, Department of Export Agriculture, Matale*

[2] *Intercropping & Betel Research Station, Narammala*

[3] *Rubber Research Station, Agalawatta*

Growing cocoa as an intercrop with rubber has already been recommended as it gives an additional financial benefit in the early gestation period of rubber. However, the success of field establishment and early growth of cocoa is found to be very low and highly variable in some districts. The age of rubber plants at the time of planting cocoa and suitable genetic material appear to be the major factors associated with such variability.

Therefore, the main objectives of this study were to find the most suitable age of rubber to be intercropped and to find the most suitable cocoa variety. This study done according to a RCB design, one year old (T1), two year old (T2), four-year-old (T3) and six year old (T4) well-established rubber blocks were intercropped with cocoa varieties of SCA_6 x ICS_6, Millawana, A-10 and W-5\5 in early 1997. Cocoa varieties were planted in each rubber block with 9 plants per plot.

Establishment and growth performances of different cocoa varieties under different ages of rubber were tested and it was revealed that the cocoa established under one year old rubber (T1) and two year old rubber (T2) performed better in growth (mean height 246.6 & 288.7 respectively). Of the 4 cocoa varieties tested, plant growth of hybrid SCA_6 x ICS_6 is superior to the other varieties. Intercropping of two- year old rubber with cocoa found to be most suitable and beneficial using the hybrid SCA_6 x ICS_6. In addition, plant establishment rate is higher under two- year old (95.98%) and four- year old rubber (97.23%) when compared with other treatments

* suba196318@yahoo.com Tel: 066 2222822