

EFFECT OF RUBBER ON INTERCROPPED TEA DURING IMMATURE PHASE OF RUBBER CULTIVATION

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An experiment was conducted to assess the eco-physiological sustainability of growing tea as an intercrop in rubber in the Dooars area of West Bengal and to identify the optimum spacing for both the crops. Four different combinations of rubber interplanted with tea, along with pure rubber and tea as controls were considered. Results proved that growth of rubber was better under intercropped plots than pure crop. Girthing of rubber (5 x 5 m, one row) intercropped with tea (1 x 0.6 m, 10 rows) was significantly higher than that in the pure rubber stand (5 x 5m). Higher girth of tea was observed in pure crop stand (1 x 0.6m) followed by paired rows (18m x 3x3) interplanted with tea (1 x 0.6m, 18 rows). Yield of green tea leaf was found to be higher in pure tea stand than in the other treatments. The remunerative index worked out for up to sixth year of planting indicated the beneficial effect of rubber intercropped with tea.

Key words: Girth, Intercropping, Rubber, Tea, Yield.

Integration of an intercrop with rubber during the immature phase of its cultivation can be useful for maximum land use efficiency. It also generates income so that a farmer can sustain his family during the unproductive period. Banana, pineapple and coffee are reported to be good intercrops during early growth phase of rubber (Chandrasekhara, 1984; Rajasekharan, 1989; Rodrigo *et al.*, 1997; Jessy *et al.*, 1998, Roy *et al.*, 2001; Pathiratnam and Perera, 2002). Timber trees like teak and mahogany are also reported as intercrops with rubber (Rodrigo *et al.*, 2002).

In the Dooars area of North Bengal, rubber cultivation is found to be promising though the land is only marginally suitable (Rao *et al.*, 1993). Tea cultivation is dominant in this area due to the favourable agroclimatic conditions like high rainfall, low soil pH and high relative humidity. Tea prices are often fluctuating and the growers get very poor returns when prices are low. Rubber is suggested as a suitable intercrop as a source of additional income and an insurance against low tea prices. Interplanting tea with rubber is reported to be suitable cultural practice in Sri Lanka for

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