

Enhanced intercropping productivity of sweet corn and okra in young rubber plantation

ABSTRACT

Background and Objective: Intercropping remains a common practice in many developing nations due to the increasing focus on sustainability and food security. A field study was conducted to evaluate the productivity of sweet corn and okra planted in intercropping as affected by crop ratios. Materials and Methods: The study was conducted in a Randomized Complete Block Design with three replications. The crop ratio treatments of intercropping pattern were T1 (20% okra+80% sweet corn+rubber), T2 (50% okra+50% sweet corn+rubber), T3 (80% okra+20% sweet corn+rubber), T4 (100% okra+rubber) and T5 (100% sweet corn+rubber). Results: The sweet corn results revealed that the number of marketable cobs, cob yield and biomass yield was significantly influenced by the cropping pattern where the highest values were obtained in sole sweet corn. The number of okra fresh pods per plant, length and diameter of the fresh pod, weight per pod as well as fresh pod yield per hectare was significantly reduced when okra was intercropped with sweet corn. With regard to intercropping efficiency, the highest Land Equivalent Ratio (LER) and Monetary Advantage Index (MAI) were from the intercropping pattern of T1 (20% okra+80% sweet corn+rubber) with 1.14 and RM 3388 ha⁻¹, respectively. Conclusion: Thus, sweet corn-okra intercropping pattern of 20% okra+80% sweet corn+rubber is the most preferred practice in young rubber plantation than sole cropping of sweet corn or okra.

Keyword: Intercropping; Sweet corn; Okra; Yield; Rubber plantation