

B264

Impact of high density planting on pineapple (*Ananas comosus*) yield and fruit characteristics

As an inter crop in coconut based cropping systems pineapple stand prominent with regard to its profitability and comparatively short pay back period. Presently, over 80

present of pineapple is grown in coconut triangle. This is mainly in Gampaha and Kurunagela districts. However, pineapple production cost in Sri Lanka is higher than the world averages due to number of reasons. One of the main reasons is the lower plant density. Thus, this study was carried out in WL3 agro ecological region, in Gampaha district under a mature coconut plantation to determine the possibility of increasing plant density and its impact on yield and fruit characteristics of Mauritius variety.

Three plant densities, respectively 14,600 (3-single rows), 22,500 (one double and two single rows), and 35,000 (3-ouble rows) plants per coconut hectare were tested in randomized complete block design with eight replicates on red-yellow podzolic soils. M,anagement practices were followed according to the Agriculture Department recommendations.

Flowering hormone was applied at 30-35 leaf stage and fruits were harvested at maturity. Average fruit weight was different among treatments and it was respectively 1.7, 1.5 and 1.3 kg per fruit with the increasing density. Average maximum weight and average maximum girth were also significantly different and followed the same pattern. Total yield was significantly different among treatments and respective yields were 25, 24 and 46 tones per hectare. Though it interferes with management, 35,000 plant density can be recommended for coconut inter cropping as it produced acceptable size fruits for local as well as for foreign markets.