

B-18: Effect of plant density on growth and yield of coffee cv. Catimor

A M D Abeykoon¹, C S Kandapola²

(¹Research Station, Dept of Export Agriculture, Matale, ²Perennial Crop Development Project, Peradeniya)

The effect of population density on the growth, light interception, yield components, flowering and fruiting of coffee cultivar Catimor was studied as a part of long term coffee high density experimental programme. Three densities were used in the experiment i.e. 4,629 (low density), 6,944 (medium density) and 13,888 (high density) trees/ha. The plant height and number of laterals produced increased with increasing density. The maximum canopy width was observed with 4,629 trees/ha. The highest dry weight and thickest stems were produced with 6,944 trees/ha. Leaf area index (LAI) was significantly increased with increasing density. LAI of 1.50, 3.02 and 4.4 were observed in plant density of 4,624, 6,944 and 13,888 trees/ha respectively. Interception of photosynthetically active radiation was significantly increased with density. Yield components were affected by density. Minimum number of flowers and fruits per node resulted with 13,888 trees/ha. Plants at the highest density produced less number of flowering branches, flowers and fruits per tree, but more fruits per hectare than those in lower densities. It is suggested that the less number of fruits per tree with high density may be due to loss of leaves at the base of the stem and unproductive base branches.