

B-13: Effect of row arrangements on groundnut - pigeonpea crop combination in the Eastern region of Sri Lanka

Suhanthy Selvarajah
(Dept of Agronomy, Eastern Univ, Chenkalady)

The effect of different row arrangements on the performance of groundnut and pigeonpea crops in combination, established on the light sandy soils of the Eastern region of Sri Lanka was studied. The experiment was laid out in RCBD, consisting of 2 sole crops and crop combinations of 2,4,6 and 8 rows of groundnut in between 3 rows of pigeonpea on either side. The crops were planted and managed according to the recommendations.

In groundnut, total biomass (g), LA(cm²), pod yield (kg/ha) and haulm yield (kg/ha) among treatments were recorded. The 3:6:3 row arrangement was found to be the best with regards to the above parameters and the values obtained for this combination were found to be significantly better than sole crop. The yield increase in 3:6:3 row arrangement was 12.05% compared to sole crop, significant at 5% level. Estimated return (Rs/ha) was also the highest in 3:6:3 row arrangement and the % increase was 47.3 over the sole crop. In pigeonpea however, no significant difference in growth and yield parameters, among treatments was noticed.

From the data obtained, it appears that yield advantage and monetary returns would be achieved in the combination of 6 rows of groundnut in between 3 rows of pigeonpea on either side. It may be the suitable crop combination to be established on sandy regosols to maximise the return, in the Eastern region of Sri Lanka.