

Effect of plant density on the yield and other growth performances of Okra (*Abelmoschus esculentus* L. Moench.) in the mid country wet zone Sri Lanka

Okra is a popular vegetable crop in Sri Lanka. It is very nutritious and also has a good export market.

The standard recommendation of the Department of Agriculture for the plant density of Okra is 33,333 plants per hectare, with the spacing of 90 cm x 60 cm. However, the country has several agro-ecological regions and different soil types. Hence, it has been realized that there should be some regional soil-specific recommendations for the plant density and plant spacing in order to achieve maximum productivity.

Therefore, an experiment was initiated to investigate the effect of plant density on the yield and some selected agronomic characteristics in the mid country wet zone of Sri Lanka.

Experiments were conducted for several seasons under different plant densities (five) and spacings (five) 60 cm x 60 cm x 75 cm, 90 cm and 90 cm x 60 cm) with popular varieties of Okra (Mi-5, MI-7 and VT) in a split plot design. The effect of plant density of 55,556 plants per hectare with the spacing of 60 x 60 cm on the yield and other growth parameters showed statistically significant improvement, and was found to be superior to that of the standard recommendation for all the three varieties tested. Early flowering, high pod number per plant, highest plant height and highest pod yield was observed. Hence, the plant density of 55,556 per hectare with the spacing of 60 cm x 60 cm was found to be the best for Okra in the mid country wet zone of Sri Lanka.