

Effect of Different Spacing on Growth and Yield of Tomato

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Abstract: Jaffna farmers cultivate many local and exotic vegetables. Several factors determine the productivity of these vegetable crops. One of the major factors determines the productivity is the plant spacing. An experiment was conducted during July - December 2007 to study the effect of different plant spacing on growth and yield of KC₁ tomato variety (*Lycopersicon esculentum*). The experiment was laid out in a Complete Randomized Design (CRD), with four replicates. Five treatments provided such as 90cm × 60cm, 90cm × 45cm, 80cm × 50cm, 75cm × 45cm, 60cm × 30cm in tomato. All other management practices were performed as per recommendation made by the Department of Agriculture. Growth parameters and yield components were recorded. The results revealed that there was not significant different in growth parameters of tomato. The highest yield (27.5 ton/ha) was obtained from the closest spacing of 60cm × 30cm which was statistically significant from other spacing. Lowest yield was recorded in 90cm × 60cm spacing. Highest marketable yield (21.8 ton/ha), non marketable yield (6.2 t/ha), lowest number of fruit per plant (16.3) were obtained in 60 cm × 30 cm spacing. Highest weight per fruit (58.9 g/fruit) was obtained in 75 cm × 45 cm. The result revealed that planting tomato at closer spacing will increase the yield and reduce unit cost of production without affecting fruit size.