



RESEARCH PAPER

Response of semi-determinate and indeterminate hybrids of tomato (*Lyopersicon esculentum* Mill.) to pruning and spacing grown under cover

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Abstract : The undercover tomato trial was conducted at Indian Institute of Horticultural Sciences, Bangalore. This study was conducted to determine the response of semi-determinate and indeterminate hybrids of tomato to pruning and spacing grown under cover. The results indicated that the plant height was the highest in closer spacing at 30 (92.58 cm) 60 (135.98 cm), 90 (185.25 cm) days after planting and at final harvest (221.35 cm), whereas maximum leaf area (4045.92 cm² and 5705.73 cm²) was observed in V₂ at both first and last harvest. Maximum dry matter (35.31 to 38.48%) was observed in leaves followed by flowers and fruits stem and root at first harvest. Maximum (45.18 to 50.4%) dry matter was observed in flower and fruits followed by stem, leave and root at final harvest. Sun 7611 (V₂) recorded the highest biomass accumulation (22.76 g, 77.81 g and 158.37 g) at vegetative phase, first harvest and at final harvest which was significantly different from Arka Abhijith (V₁). Fruit set percentage was higher in Arka Abhijith (59.43%) than Sun 7611 (54.57) more number of flowers formed fruits in single stemmed plants (59.24%) compared to double stemmed plants (54.76%). Among spacing treatments per cent fruit set did not differ significantly. Further fruit yield was significantly higher in P₂ (2.23 kg) than P₁ (1.96 kg). Maximum fruit yield per plant was obtained in S₃ (2.44 kg) followed by S₂ (2.03 kg) and the least was observed in S₁ (1.81 kg) which were significantly different. However, yield per hectare was significantly improved under closer spacing.

Key Words : Semi-determinate, Indeterminate, Pruning, Spacing

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