RESEARCH PAPER

Response of tomato to different fertigation levels and schedules under polyhouse

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Abstract : An experiment was conducted to study the effect of fertigation levels and schedules on growth, yield and nutrient uptake of tomato under polyhouse. The treatments included 3 fertigation levels (F_1- 60% of RDF, F_2- 80% of RDF, and F_3- 100% of RDF) and 3 fertigation schedules (S_1- 6 equal splits of RD of NPK at every 18 days interval, S_2- 9 equal splits of RD of NPK at every 12 days interval, S_3-12 equal splits of RD of NPK at every 9 days interval). The results indicated that fertigation of 100 per cent RD of NPK (300:150:150 N, P_2O_5, K_2O kg/ha) in 12 equal splits at every 9 days interval up to 120 DAT was found significantly superior in case of growth, yield attributes and fruit yield of tomato. However, it was at par with 80 per cent RD of NPK (240:120:120 N, P_2O_5, K_2O kg/ha) in 12 equal splits at every 9 days interval up to 120 DAT. Similarly, significantly maximum nitrogen, phosphorus and potassium uptake by tomato plant was registered with fertigation of 100 per cent of RDF and 12 equal splits of NPK at every 9 days interval up to 120 DAT. It was further concluded from the study that fertigation of 80 per cent RD of NPK (240:120:120 N, P_2O_5, K_2O kg/ha) in 12 equal splits at every 9 days interval upto 120 DAT was found to beneficial for higher growth and fruit yield of tomato under polyhouse condition during summer season.

Key Words : Tomato, Fertigation levels, Schedules, Growth, Yield, Nutrient uptake

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