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Efficacy of conventional, solid soluble and liquid fertilizers applied through drip-fertigation on tomato

K. Rajan*, A. Abdul Haris, L.K. Prasad and Shivani**

Division of Land and Water Management, ICAR Research Complex for Eastern Region, Patna 800 014, Bihar

ABSTRACT

A field study was conducted during *rabi* seasons at research farm of ICAR Research Complex for Eastern Region, Patna to examine the effects of sources and rates of fertilizers on the growth, yield, economics and fertilizer use efficiency of tomato under drip-fertigation. Three types of fertilizer sources in combination, *i.e.*, conventional fertilizers (F1), conventional with soluble solid fertilizer (F2) and conventional with liquid fertilizer (F3) were applied at three different rates, *viz.*, 50% (D1) 75% (D2) and 100% (D3) of recommended doses. The study revealed that root growth parameters were positively influenced by the application of liquid fertilizers. Treatment F3 showed the highest root growth followed by F2. Fertigation with CF + liquid fertilizers (F3) gave the maximum fruit yield of 55.7 t ha^{-1}. Highest B: C ratio of 1.96 was recorded in fertigation with conventional fertilizers (F1). Different fertilizer doses were not significant. However, 50% dose (D1) recorded the highest fertilizer use efficiency (3.7 q/ kg of NPK).