RESEARCH PAPER

Effect of different level of water, N and K application through drip irrigation on growth and yield of guava

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Abstract: The present experiment was conducted to study the effect of different levels of water, N and K application through drip irrigation on growth and yield of two varieties of Guava namely L-49 and Allahabad Safeda. The results indicated that the different levels of water, N and K application through drip irrigation significantly influenced growth and yield of both L-49 and Allahabad Safeda variety. L-49 variety recorded significantly better plant canopy and Allahabad Safeda recorded significantly better plant girth increment and yield. Among the different water application treatments 100% of evaporative replenishment induced better plant girth increment and yield in both the varieties. N and K fertilizer was applied through drip irrigation and 120% of recommended dose N and K application resulted in maximum plant canopy increment, plant girth increment and yield in both the varieties. Water application at level of 100% of evaporative replenishment and 120% of recommend dose N and K fertilizer applied through drip irrigation appeared to be the best combination as it induced highest plant girth increment (3.34 cm), highest fruit yield (41.61 kg plant⁻¹) and highest fruit size (216.34 g).

Key Words: Guava, Drip irrigation, N & K fertigation, Plant girth, Plant canopy, Fruit yield, Fruit weight, Evaporative replenishment

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