

Drip Irrigation Timing and Its Effect on Tomato Yield for a Two-Day Schedule

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Abstract : Irrigation schedules are normally given in terms of frequency (irrigation days). Specific timings within a given day are not usually included. This study examined the effect of irrigation timing for a two-day irrigation schedule of a surface drip-irrigated tomato field on yield. It was carried out for three dry seasons; July-Sept 2016, Jan-April 2017 and Jan-March 2018, at MuZARDI research station. Four irrigation treatments; T1 morning (8.00hrs), T2 noon (12:00hrs), T3 evening (17:00hr) and T4, a combination of morning and evening, were evaluated. The irrigation duration was one hour for T1-T3 and split into 30 minutes for T4. First season results indicated noon watering as having the best yield over other treatments at 51.59t/ha followed closely by morning watering at 50.6t/ha. Plants watered at noon had the highest number of fruits at 19/plant with an average weight of 94g/fruit. Plants watered in the morning had fruits with the highest average weight at 111.2g/fruit but they were the lowest number at 16 fruits/plant. The three-season data indicated the highest yield at 45.9t/ha for morning watering, followed by noon watering at 44.3t/ha and the least yield was for evening watering at 40.9t/ha. Watering tomatoes in the morning will give optimum yields for a two-day irrigation schedule.

Keywords : drip irrigation, irrigation schedule, irrigation timing, tomato yield

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