Comparison of Drip Irrigation Applications for Experiment Station Row Crop Plot Management. (A07-stapleton182809-Poster)

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Abstract:

The management of row crops for plotwork on an agricultural experiment station in an arid climate requires experience and knowledge in the selection of irrigation methodologies and hardware. A replicated study was conducted on an Arlington fine sandy loam with five drip tube products at 83 kPa (12 psi), Queen Gil low at flow rate 79 L hr-1 30 m-1, Queen Gil medium at 118 L hr-1 30 m-1, Roberts RoDrip at 60 L hr-1 30 m-1, Euro Drip at 121 L hr-1 30 m-1, and T-Tape 165 L hr-1 30 m-1 each placed at 8, 15, and 23 cm depth in beds to evaluate the wetting patterns for the site. After 6 hr, surface wetting of the T-Tape was most uniform at all depth placements. The T-Tape and Roberts RoDrip treatments were the quickest to show surface wetting at 0.5 hr at 8 cm and 4.5 hr at 23 cm depth placement. Surface wetting of the Queen Gil low treatment took 1.5 hr placed at 8 cm and 18 hr at 23 cm. Radish (Raphanus sativus) was seeded into the beds and at two weeks there was no significant difference in emergence among treatments. There were some differences of fresh weight at four weeks when planted at 15 cm.

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