

Comparative Study of Porous Pipe and Drip Irrigation Systems

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ABSTRACT

An experiment was conducted on the comparative study of porous pipe and drip irrigation systems in tomato with five irrigation levels sub treatments (80%, 70%, 60%, 50% and control) with three replications. The total area under experiment, about 249 m² was divided into two equal portions. One portion about 8.3 m X 15 m was occupied by porous pipe and other portion about 8.3 X 15m by drip irrigation system. The soil in the experimental site was silt loamy in texture for 0-30 cm depth, average dry bulk density and field capacity were 1.38 g/cm³ and 29.1 % respectively. The results revealed that the porous pipe irrigation system with all irrigation levels save water and gave more yield as compared to that of drip irrigation method with all irrigation levels. Higher yield attributes, water use efficiency 51.2 kg/ha/mm was obtained in porous pipe system. Whereas lower water used efficiency about 23.9 kg/ha/mm was obtained in drip irrigation system. The present study suggest farming community to adopt porous pipe irrigation method instead of drip irrigation method keeping in view of declining water resources.

Keywords: *Porous pipe and drip irrigation methods, Water use efficiency, Yield*