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
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**Effect of Different Water Amounts and Discharge Rates on Moisture Distribution
in Perlite and Pumice by Trickle Irrigation**

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Abstract: This study was undertaken to determine the effect of different particle size and discharge rates and total irrigation water on moisture distribution in perlite and pumice. Four different discharge rates (2 L/h, 4 L/h, 6 L/h, 8 L/h) with 5 and 10 L total irrigation water were applied. Drainage type cylinders with 80x80 cm in size were used in this experiment. After each water application, vertical and horizontal moisture distributions were investigated. Results showed that discharge rate, applied irrigation water and particle size used had significant effect on wetting front. Vertical and horizontal water movement were greater in pumice than in perlite. In both materials, it was greater in 10 L water application than in 5 L. In addition, it was obtained that the shape of wetting area changed by discharge rate and particle size of the material.

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