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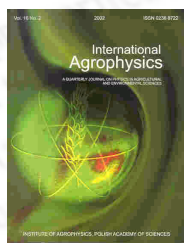
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Soil water balance of an arid linear sand dune

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abstract The soil characteristics and water balance of an arid sand dune ecosystem were investigated in Nizzana, NW Negev Desert, Israel. The main emphasis was placed on the relations between atmosphere, vegetation and soil moisture. Soil moisture measurements were carried out using time domain reflectometer (Easy Test Co., Poland). The soil investigations required transect- and area mapping, soil characterization and time flow analyses. The abiotic factors, such as relief position and exposure, together with biotic factors affect the water dynamics in the ecosystem through redistribution and accumulation processes. Input and output paths and components of the water balance were identified and then quantified.

keywords soil water balance, TDR, arid ecosystem

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