

# THE POTENTIAL OF AN ORGANIC SOIL ADDITIVE ON IRRIGATION EFFICIENCY IN TRADITIONAL OASIS AGRICULTURE, ALGERIAE

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## SUMMARY

Soil additives are becoming increasingly valuable, especially in arid zones with sandy, barren soils and water shortage when soil characteristics such as water-holding capacity need to be improved. Our investigations have been carried out in order to find out if an organic superabsorbent as soil additive has the potential to raise irrigation efficiency, and to improve crop yields in traditional oasis agriculture. With a split-block design two levels of soil additive ("Hydrodyne" 1 and 4 Vol.-%) compared with untreated soil were tested. Irrigation field experiments in Béni Abbès, saharian Algeria, were done under the condition of soil moisture content adapted plant water requirement without any excessive water supply. Results from the irrigation field tests with the additive showed no positive effect in regard to water efficiency and productivity.

**Keywords:** Oasis irrigation, organic soil additive, Algeria