

OLIVES WATER PRODUCTIVITY UNDER DROUGHT CONDITIONS

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ABSTRACT

The identification of strategies for deficit irrigation of olive orchards is a measure of preparation to cope with droughts. This study aims at evaluating the feasibility of deficit irrigation of intensive olive orchards applied to a specific location in Alentejo, Southern Portugal. The SIMDualKc simulation model was adopted. Data on the value and costs of production, water price and systems performance were used to compute indicators of water productivity, and their spatial variability was assessed. Results show that the main bottleneck is the low performance of the irrigation systems. Deficit irrigation is likely to be viable when improving the irrigation performance. It is concluded that irrigation water prices need to be flexible in such a way that the water prices policy favours improving the irrigation systems performance.

PALAVRA-CHAVE: water balance. crop-water relations, water saving, irrigation performance, water price