

ALTERNATE IRRIGATION OF AVOCADOS WITH MODERATE SOIL MATRIC POTENTIAL

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The experiment started in 2004. Two cultivars (Fuerte and Hass) on two rootstocks (Topa Topa and Lula) were included. The design was on randomised blocks. The conventional fixed irrigation had 2 microsprinklers per tree. With alternate irrigation, every microsprinkler irrigated a larger area and water was applied alternatively to both sides of the tree using a double irrigation system. The irrigation side was changed when soil Ψ_m (matric potential) at 50 cm depth reached -1 MPa. In the first two crops (2005 – 2006), after the irrigation change, differences between treatments were small and inconsistent. In 2006 – 2007, yield and potential yield (including fallen fruits), number and size of fruits were slightly but not significantly higher with alternate irrigation. Tree efficiency and increase of trunk cross sectional area were practically identical in both irrigation systems. These results confirm previous published information showing similar results with fixed and alternate irrigation.