

Article title	Effect of drip deficit irrigation and mulching on soil salinity, yield and water use efficiency of Squash (<i>Cucurbita pepo</i> L.)
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Abstract

Yield and water-use efficiency of squash (*Cucurbita pepo* L.) under drip deficit irrigation and mulching were investigated. Field experiments were conducted for two consecutive seasons (summer and fall), to study the effect of different mulches (without mulch, WM as a control, white polyethylene: PM, rice straw: RSM, farmyard manure: FYM) on growth, water-use efficiency (WUE) and yield of squash under three irrigation treatments. Amount of applied irrigation to each experimental plot depended upon a percentage of ET_c computed using the equation of Allen et al (1998) in addition to the leaching requirements and considering the irrigation application efficiency. Irrigation treatments were irrigation on basis of 100, 85 and 70 % of computed evapotranspiration. Plant photosynthesis efficiency, total soluble sugars (TSS), leaf area index, harvest index (HI), yield and WUE were not significantly affected by interaction between irrigation and mulching treatments. All mulching materials effectively reduced salt accumulation in the root zone. Mulching treatments markedly increased WUE and yield in the order of FYM > RSM > PM > WM. Results showed that, irrigation of squash with 85 , the I₈₅ strategy studied here could be successfully applied during summer and fall seasons in commercial squash production allowing water savings of 15% without any detrimental effect on plant growth or yield.