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عنوان مقاله:

Impact of Ssuper Absorbent Polymer and Irrigation Management on Seed and Essential Oil Yields of Cumin

محل انتشار:

مجله گیاهان دارویی و محصولات فرعی, دوره 5, شماره 2 (سال: 1395)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Two field and laboratory experiments were conducted to investigate the effects of superabsorbent polymer (SAP) and irrigation management on seed and essential oil yields of Cumin, as well as the impact of water quality on water holding capacity of SAP. Salinity had a negative effect on the amount of water absorbed by SAP (۳۳۵ and ۵۹ g H۲O per g SAP, for distilled water and solution of ۰.۵% NaCl, respectively). SAP application (۳۰ kg.ha-۱) along with three times irrigation at sowing, flowering and seed filling stages increased the amounts of seed and essential oil yields by ۲.۷۹ and ۳.۰۵ times, compared to control. Positive effects of SAP were related to enhancement of soil water holding capacity (۱۲۰ gr irrigation water per gr SAP), leaf area duration (one week) and subsequently grain filling period.

کلمات کلیدی:

Deficit Irrigation, Leaf area duration, Medicinal plants, Secondary metabolites

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