

Effect on Yield and Yield Components of Different Irrigation Levels in Edible Seed Pumpkin Growing

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Abstract : Edible seed pumpkin (*Cucurbita pepo* L.) is one of the important edibles preferred by consumer in Turkey due to its higher nutrient contents. However, there is almost very few study on water consumption and irrigation water requirement of confectionary edible seed pumpkin in Turkey. Therefore, a 2-year study (2013-2014) was conducted to determine the effects of irrigation levels on the seed yield and yield components of drip-irrigated confectionary edible seed pumpkin under Turkey conditions. In the study, the experimental design was made in randomized blocks with three replications. Treatments consisted of five irrigation water levels that compensated for the 100% (I₁₀₀, full irrigation), 75% (I₇₅), 50% (I₅₀), 25% (I₂₅) and 0% (I₀, no irrigation) of crop water requirements at 14-day irrigation intervals. Seasonal evapotranspiration of treatments varied from 194.2 to 625.2 mm in 2013 and from 208.6 to 556.6 mm in 2014. In both years, the highest seasonal evapotranspiration was obtained in I₁₀₀ treatment. Average across years, the seed yields ranged between 1090 (I₁₀₀) and 422 (I₀) kg ha⁻¹. The irrigation treatments were found to significantly affect the yield parameters such as the seed yield, oil seed yield number of seeds per fruit, seed size, seed width, fruit size, fruit width and fruit index.

Keywords : irrigation level, edible seed pumpkin, seed quality, seed yield

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