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## Determination of the Amount of Irrigation Water and Interval for Cotton With the Pan-Evaporation Method

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**Abstract:** This study was conducted to determine the amount of irrigation water and interval of cotton irrigated by the drip system with the pan-evaporation method. The amount of irrigation water applied was based on free surface evaporation from a screened Class-A Pan. Irrigation treatments consisted of two different irrigation intervals (I1: 5; I2: 10 days), and three plant-pan coefficients (Kcp1: 0.75, Kcp2: 0.90, Kcp3: 1.05) and two different wetted percentages (P1: 0.70 and P2: based on the cover percentage of the crop). According to the results, seasonal irrigation water varied from 322 to 472 mm; seasonal Et was 449 to 615 mm; and the cotton yield varied from 1970 to 4220 kg per hectare. Although the effect of irrigation intervals and wetting percentages on cotton yield were not significantly different, plant-pan coefficients in the first year and P-Kcp interaction in the second year were significantly different at a 5 % level among the treatments. The results revealed that cotton can be irrigated with drip systems using a 10 day interval, Kcp 0.90 or 1.05 (mean: 1.00) and P based on the actual cover percentage of the crop.

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