

ABSTRACT

THE EFFECT OF DRIP IRRIGATION APPLICATIONS OF SOME YIELD AND QUALITY PARAMETERS OF PROCESSING PEPPER

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This research was conducted to determine the effect of different irrigation applications on water-yield associations and some yield and quality parameters of processing pepper in the basin of the Büyük Menderes River, Koçarlı, Aydın.

This study was carried out in the Research and Application Farm of Faculty of Agriculture at Adnan Menderes University in 2013. Experiment was set up out in randomized plot design with two factors and three replications. In the trial, totally ten irrigation treatments comprised of two irrigation intervals (once in 3 or 6) and five irrigation levels (25 %, 50 %, 75 %, 100 % or 125 %) that were determined according to quantity of evaporation occurs on the surface of the open water was investigated. In the study drip irrigation method was used.

The results showed that the fruit yield was affected by irrigation levels but not affected by irrigation intervals. The highest fruit yield was obtained as 5424.24 kg/da, at irrigation level of 125 % in 3 days of intervals from T₅ treatment. The lowest fruit yield 3009.20 kg/da, at irrigation level of 25 % in 3 days intervals from T₁ treatment. The amounts of applied irrigation water ranged between 493.98-1166.87 mm. According to the results of variance analysis that used quality parameters obtained from the study there is no effect of irrigation intervals on quality parameters. On the other hand, irrigation levels have a significant effect on fruit caliber, fruit height and fruit weight but total soluble solids (brix) and fruit color were not affected significantly.

Key words: Processing Pepper, Irrigation Intervals, Irrigation Levels