P-83 (99)
REACTION OF PEPPER PLANT TO DEFICIT IRRIGATION

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Urbanization and industrialization together with rapid population growth bring together the necessity of decreasing the amount of water spared for the agricultural sector although the water resources on the earth are unchanged. In addition to this, the drought which is the result of global warming is putting pressure on water reduction in the agricultural sector, which is the largest user of available water sources. In addition to these unfavorable conditions for the agricultural sector, it is also a fact that today agricultural fields cannot be increased in order to increase the agricultural production in order to meet the needs of the increasing world population. Under these conditions, the only way to increase agricultural production is to obtain the most crops using the available land and water resources. It cannot be denied that in addition to other factors, the proportion of the irrigation is great in increasing agricultural production. The main objective of this work, which is addressed in this context, is to investigate the possibilities for the effective use of limited land and water resources. In this study, the reaction of pepper plant grown in greenhouse conditions was investigated. The study was carried out in Antalya-Turkey, which has semi-arid Mediterranean climate characteristics, which is also one of the places where agricultural production is done commonly in greenhouses. Four irrigation levels in total were used in the study and one of them was the control treatment. The measurements were taken from the Class-A evaporation pan placed in the greenhouse to calculate the amount of irrigation water. Irrigation applications were made by drip irrigation method. During the research process, all agricultural operations were applied equally to all the parcels. The only differences in the irrigation practices were the irrigation treatments and treatment types. In other words, the differences in the data obtained from the study were influenced by the applied irrigation treatments. In the study, it was concluded that the deficit irrigation was effective on the pepper plant.

Keywords: Drip irrigation, greenhouse conditions, irrigation water, yield.