

ABSTRACT

EVALUATION OF IRRIGATION APPLICATIONS IN THE LANDS INTERVENED FROM SURFACE IRRIGATION SYSTEM TO COLLECTIVE PRESSURIZED IRRIGATION SYSTEM IN AYDIN REGION

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Implementing pressured irrigation technologies that are well conceptualized the projected provided less utilization of water, energy and labour into usage of restricted water resources in the country has a huge importance to be more consistent and sustainable in the country. This research was carried out to determine amendments consisted of in the region after intervened from surface irrigation system performed by the water obtained from underground holes belonging to Irrigation Cooperative of Ataeymir to collective pressured irrigation system placed in Ataeymir town in Karacasu district located in Aydın province. The effects of alteration in the irrigation system on crop pattern, product yield, applied irrigation techniques, irrigation management style, water utilization, farmer behaviours, development of irrigation area and irrigation costs were analysed. For this purpose, some investigations were conducted in the research region and also a survey study was performed with 60 persons randomly selected, who are the members of Irrigation Cooperative of Ataeymir. According to the research result, theoretical and applied training on irrigation could not be given to the farmers by the project stakeholders during intervened from surface irrigation system to collective pressurized irrigation system. As a consequence of this, the rate of the farmers, who also changed the drip irrigation system due to improper practices, was 22%. It is defined that 100% of the farmers are pleased to use collective pressured irrigation system. While the farmers defined highest yield increase 21-30% rate as 24%, the lowest rate as the farmers identified no yield increase, as 10% with transition from surface irrigation to drip irrigation. While the farmers determined the highest rate as 41-60% in decreasing of weed occurring as 30%, the lowest rate as the farmers defined no decreasing in weed occurring as 10%. While the farmers stated the highest rate as 61-80% in decreasing of irrigation labour as 29%, the lowest rate, 5-20% as the farmers determined as 13%. The rates of the farmers using on line drippers, in line drippers, and small springs on the lateral pipes using in interior drip irrigation of parcel system are defined as 57%, 32% and 11%, respectively.

Key Words: Pressurized irrigation system, drip irrigation, surface irrigation, Irrigation Cooperative of Ataeymir.