



ECONOMICAL EVALUATION OF USING DIFFERENT TYPES OF IRRIGATION WATER IN PRODUCING WHEAT CROP

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ABSTRACT

This research aimed to study the economical impacts of using different types of irrigation water to produce wheat crop, through economic analysis of crop production and its costs, in order to maximize the income of each unit of water. The sample of study was chosen from wheat farmers in El.Sharkia Governorate. The results indicated that the productivity of one feddan irrigated with fresh water and groundwater was 18.09 and 18.08 ar-dab/fed respectively. It was 17.72 and 17.11 ar-dab/fed. for land irrigated with mixed water and drainage water respectively. The feddan irrigated with fresh water consumed 2672 m³ compared with 2922, 2841 and 3263 m³ for groundwater, mixed water and drainage water respectively. The feddan of wheat irrigated with groundwater gave the high-

est return of income changed costs that was 1.233 pounds.

The farmers in the study sample used quantities of irrigation water greater than the amount that achieve efficiency in the case of irrigation with groundwater rate of 6.23%, while the farmers in the study sample used quantities less than the amounts that achieve efficiency by 1.27%, 10.9%, 7.9% for wheat irrigated with fresh water, mixed water and drainage water, respectively.

The research recommended using these different qualities of water in irrigation, but in the context of a set of parameters with not of focusing on the use of agricultural drainage water directly due to the Low productivity per feddan and the low average of water unit production and the share of water unit of the net return, certain attention should be paid to mixing drainage water with Nile water, and also to treating drainage water before mixing with fresh water of River Nile.