

## **An exploratory study on the applied irrigation technology in the desert lands in the west of Minya and Assuit**

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### **Abstract**

The study aimed to recognize some characteristics in the area of the study, to identify the respondent information sources of modern irrigation technology, and their level of implementation of modern irrigation technology in the area of the study and the problems which face them during implementation of modern irrigation technology.

The study was conducted in Minya and Assuit governorates in some villages were chosen randomly among the Desert back villages in the two governorates, villages 3, 5 and 8 in Minya and Dashlout, Bawit and Deer alganadila in Assuit governorate.

The data was collected in June and July 2019 from the sample through focus group discussion, the total number of the respondents was 129, the descriptive system was used in analyzing data.

### **The main results were as follows:**

**First:** some agricultural characteristics in the area of the study ; About a third of the respondents in Minya grow vegetables, half of them grow traditional crops and few grow medical and garden crops .

In Assuit about half of the respondents grow vegetables, about a third of them grow traditional crops and the few that remain grow garden and medical crops.

The results show that the water used in irrigation is from wells by two thirds and the number of days for irrigation shift in the main canal does not exceed 3 days, the level of water in the main canal is mostly weak, about one third of the growers use electric energy in operating irrigation machine, two thirds of them use diesel machines, the discussions results showed that one fifth of the growers irrigate by Immersion style while Four-fifths of theme use dripping or spraying style

**Second:** The results of the discussion showed that the high majority of growers resort to relatives and neighbors as the most important source of information about modern irrigation technology in the study area, the second source of information was Senior farmers in the village and this was reported by half of the respondents, then agriculture programs TV by third of the respondents while the rest of the sources were of a very low level.

**Third:** level of implementation of modern irrigation technology in the area of the study: the level of applying improving soil technologies, growing system, technologies of surface irrigation and systems of rational irrigation were low, while it was average concerning the technology of irrigation systems and it was high level in the technology of irrigation Scheduling.

**Fourth:** The problems which face the growers in applying irrigation technology: The absence of agriculture extension and water guidance in the area, the growers' little financial ability, the high cost of building modern irrigation nets, the unavailability of water in the main canal, growing land as a usufruct only and the difficulty in rationing the possession case, the growers little awareness concerning the rational use of irrigation water, not having finance to Facilitate using modern irrigation system, traditions in the over use of water , not having specialized persons in maintaining the modern irrigation nets in the area, the unavailability of needed quantities of agriculture gypsum, not having agriculture machinery station in the areas , unavailability of under soil machines in the areas and it is high cost, the unavailability laser machine in the areas and its high cost , the impossible laser flattening in small areas .