



THE FACTORS AFFECTING THE ADOPTION OF SPRINKLER IRRIGATION TECHNIQUE FOR UNDERGROUND IRRIGATED WHEAT IN THE FIRST AND THE SECOND AGRICULTURAL STABILITY ZONE IN TWO PROVINCES OF ALEPPO AND IDLEB

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ABSTRACT

The research aims at studying the indicators of Adoption (Rate of Adoption and Degree of Adoption) of sprinkler irrigation technique of farmers growing wheat depend on underground water for irrigation (wells) and studying some of the economical and social factors and others which influence the decision of the wheat farmers in adopting sprinkler irrigation technique and knowing the obstacles which limit adoption of this technique.

To fulfill aims of the research, the data were collected from a random sample, (335) farmers from the two zones, the first and second agricultural stability zones from the north region (two provinces of Aleppo & Idleb) by an interview questionnaire in the third and fourth quarters of 2010.

The study relied on the following tests and measures: Correlation, binary logistic regression .

Results of the research have shown that the farmers adoption rate of sprinkler irrigation technique was 47.8% and the adoption degree of this technique is 50.9%, and the adoption rate of this technique is expected to increase from 47.8% in 2007 to 77 % in 2030 with an annual rate of nearly 1.27.

The results of studying the factors which influence the adoption of this technique using binary logistic regression revealed a negative significant relation between the dependent variable " adoption of modern irrigation techniques by wheat farmers" and all the independent variables (Percentage of farming labor force to total family labor force, the availability of labor force, the availability of water for irrigation). While, there has been revealed a positive significant relation between the dependant variable (sprinkler irrigation technique adoption by farmers) and all independent variables (crop area, family participation in agricultural decision making, attitude of the farmer towards the agricultural extension, the percentage of farmers with level of elementary certificate and above).

The results also have shown that the factors which influence the decision of wheat farmers adoption of sprinkler irrigation technique varies between the first agricultural stability zone and the second one concerning the effect value and its signification.

The results have shown that the great obstacles which limit the sprinkler irrigation adoption was increasing the technique cost of 38.1 % and the ignorance of the loans & facilities which are presented by the transfer project to the modern irrigation in a percentage of 14.2 %.

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