



## **Agricultural Extension Needs' Assessment of Bedouin farmers for wheat and barley crops under Adverse Environmental Conditions in North Sinai Governorate- Egypt**

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**Abstract :** The project aims to 1 - Identify personal, social and economic characteristics of the Bedouin growers of wheat and barley in North Sinai, 2. Assess their needs of the knowledge and agricultural practices to apply technical recommendations under adverse environmental conditions, 3. Identify the production problems facing the growers and their proposals to solve it, 4. Determine the relations between the level of knowledge & Executive practices for the needs of Growers as dependent variables and some independent variables. The research depend on a descriptive and exploratory approach, also used the analytical method in the study of relations between the variables , a questionnaire has been prepared, which were collected from farmers by personal interview, a random sample have been selected ,it represents different environmental conditions. Data has been presented by using frequency tables and percentage in order to describe some of the personal, social and economic characteristics of respondents. The percentage of the average degree for maximum Needing Requirement in order to describe the level of cognitive and executive need . Spearman correlation coefficient was used to test the correlation between the studied variables. The results have been clarified that the traits of wheat and barley growers in the sample as follows; the majority of the growers were illiterate, have large families, work in agric., activities only, possess less than 20 acres, few possess of agric-non agric., machinery, live in huts, few possess of farm animals (less than 10 heads of sheep and goats), they are low social participation, low opinion leader, low credibility of agric., information sources. Results show that the growers of wheat and barley from the severe need level with respect to cognition & executive cognition of the following technical recommendations (fertilization, disease control, land preparation and cultivation practices), medium need level of the following technical recommendations (sowing date, weed control). Bedouin farmers suggested some solutions to overcome the production problems such as; dig shallow wells and build reservoirs to keep rain water and increase number of water tanks to contribute in solving the problem of rain water shortage or well water shortage, providing agricultural mechanization services in the Agricultural Society To overcome the problem of lack of agricultural machinery for the plowing process, overcome the problem of increasing farmers' debts to the bank, they have demanded to give a grace period for repayment loans in areas with adverse environmental conditions.

Results show that there is a very significant positive relationship, between each of the level of knowledge & executive practices for the needs of growers to apply technical recommendations as dependent variables and between each of the following independent variables; the age, size of family members, a full-time agricultural work, the size of agricultural holding, and there is very significant negative relationship with each of the following variables: Educational status, the degree of social participation, the degree of opinion leadership, and involvement degree of agricultural extension activities.

**Key words:** Agricultural Extension – Needs' assessment— Adverse Environmental Conditions – knowledge- wheat crop - barley crop.