



## THE IMPORTANCE OF AGRICULTURAL EXTENSION RADIO PROGRAMS FOR FARMERS IN AL-QOSH, NINEVEH GOVERNORATE AND ITS RELATIONSHIP TO SOME VARIABLES

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### Abstract

The research aims at recognizing the importance of the agricultural guidance radio programs for the farmers in Alqosh township, Nineveh governorate, and finding the correlation between the importance of the agricultural guidance radio programs and some independent variables appertain to the farmers. The research population consisted of (1173) one and all farmers of Alqosh township. A random cluster sample (multi-stage) is chosen, which consisted of (85) farmers. The data are collected through a questionnaire after assuring its validity and reliability, and analyzed by using the arithmetic average, standard deviate and chi-squared test. The results revealed that (55.29%) of farmers emphasize on the importance of the agricultural guidance radio programs, and to reveal the importance degree of the agricultural guidance radio programs as a source of agricultural information from the farmers' point of view, (the agricultural specialists of the agriculture offices) attain the first degree, as for the agricultural guidance radio programs attain the sixth degree, yet the agricultural research stations attain last. The results, also, showed that there is non-significant relation between the importance of the agricultural guidance radio programs and the farmer's age and education attainment, however, there is a significant relation between the importance of the agricultural guidance radio programs and each of (social rank, cultural openness, devoting for agriculture). Both researchers recommended taking into consideration the region circumstances when it comes to produce the agricultural guidance radio programs, and broadcasting these programs in farmers' spare time, besides, performing studies similar to this one tackle with another variables.

**Keywords** : radio programs, Agricultural Extension, Al-Qosh

### Introduction

The basis of agricultural development is a shift from traditional production methods to modern production methods confirmed by the results of agricultural scientific research in the field of agricultural production. The present and the future. This type of development is defined as the management of natural agricultural resources, agricultural technology and related institutions in a manner that ensures the fulfillment and continued satisfaction of the human needs of present and future generations (Salah and others, 2004).

Development mainly targets the development of human capabilities, and among the related issues that have aroused the interest of states in the current era is "media and development" in order to build and develop our societies culturally, as the importance of the media increases in the present era day after day. Effective in activating various aspects of life, which witnessed a huge breakthrough in his techniques. Radio is considered one of the most capable means of participating in cultural activities, as culture is one of the most important goals of broadcasting, which provides its listeners as it works to transfer culture, spread it and preserve its essence. The latter helps the individual to fulfill his desires and fulfillment through what he acquires from the roles that cannot be underestimated by considering their flexible programs (Wedad, 2016).

Agricultural extension plays an essential role in agricultural development that requires concerted efforts for the development of both human and material resources and organizing them in a manner that achieves the desired goals of this development, as the human element is responsible for the process of maximizing the available material resources, then this element must be trained Good to be able to play his role effectively (Al-Ajeeli and Mazhar, 2007). Also, agricultural extension is considered a kind of optional contact

that depends on working with people and for them to explain to them the ways of work, so they choose among them the path that serves their interests and solves their problems, and by following us on the path of the applied extension process with its different purposes, any extension process must be preceded by contact Consistent with the logic and the reality of the situation. In other words, communication is a starting point for this guidance on the one hand, and on the other hand, agricultural extension is used to achieve the various goals and educational methods they aspire to, starting with individual contact with the farmer and his family, then collective methods and extends them to the methods of mass communication Seen through the press, radio and television (Al-Hamouli and others, 2017).

Agricultural extension can only be done through a communication medium, in addition to the completion of the extension process, requiring a re connection to establish what has been accomplished or to start a new extension process. In sum, the right communication process is the core of successful agricultural extension work in particular and rural development in general. (El Deeb, 2016). The diversity of extension methods is a comparative advantage for agricultural extension as an educational system that enables it to cope with the diversity of the mentoring public it deals with. The multiplicity of goals and programs that it seeks to achieve (Abu Al-Saud and others, 1996) and the methods of mass communication are those through which the agricultural guide can reach large numbers of the masses of farmers or guides in a short period of time. Among the most important means used are informative publications, television and radio (Al-Tounoubi, 1998). because to this great scientific progress and the huge technological revolution, the media imposed its presence on the human being and his life and reached its strength and development, so that man can no longer ignore

these means while chasing him everywhere by word, image and sound to convey to him the news, and explain the event to him, and develop his mind, and raise his emotions And increases his experiences (Suleiman *et al.*, 2010).

Therefore, the agricultural media has an important role in changing and influencing farmers, as it is the tool for change in the future, and it is the cornerstone in developing many aspects of rural life, as it encourages the individual to express his opinion and defend his right, and he who puts wrong practices on the accusation table and rules on them Wrong practices. On the other hand, we find that the agricultural media exercises the role of the guide for agricultural practice through the content of its agricultural media programs. It generally deals with agricultural news and information materials for workers in the agricultural field, including farmers, livestock keepers and birds .... Also, these media materials contain agricultural information on Cultivation of different species, their planting times, how to care for, irrigate and harvest, ways of using fertilizers and chemicals, control of agricultural pests, etc. Also, agricultural flags address other areas relevant to agriculture and the life of farmers (Falih, 2006).

As programs and media tools are generally considered aids to reach farmers and to identify the needs of society and its problems in order to put them in the focus of attention of officials and decision-makers as they support communication between societies and transfer experiences and information to a large number of people in a short time and they are useful in creating interest General on specific issues, especially in emergency situations that need speedy decision-making and actions to address the situation (Ahmad, 2002). As audio broadcasting occupies a special place in contacting farmers, it provides guidance programs directed to farmers, addresses the problems they are exposed to and provides solutions to them. Radio as a mass media is very cheap, so farmers can get it easily and conveniently. It is also a medium that does not require the skill of reading and writing. The radio is also easy to get, carry and carry so that it can be taken anywhere, so it can be heard at home, in the field or on the road. Thus, radio plays an important role in the lives of the masses because of its superior ability to reach societies in general, and this importance extends beyond the third world countries to the great countries. (Khalifa and Saad Eddin 2002). From here it becomes clear to us the importance of using the radio to guide the audience of farmers in order for the illiterate and the educated to benefit from it in addition to its wide spread and the speed of delivering the message to the farmers 'audience in addition to being easy and inexpensive (Adlan, 2005). The question remains on how to introduce rural radio programs and how important they are for farmers and in order to raise the level of farmers awareness and develop their knowledge and skills in light of the development in technology and how to present these agricultural radio programs in a way that affects the rural acceptance of this type and rural radio programs and the extent of benefiting from them, and where it is No previous studies were conducted in this field, which prompted the researchers to conduct this type of study.

Some studies have been carried out regarding the indicative radio programs, and the researchers used them

because there are no previous studies that are completely similar to the current study, including (Solomon and others, 2010) on the role of rural programs in the development of the Egyptian countryside, which indicated that there is no significant correlation between the importance of agricultural radio programs And each of the following independent factors (number of years working in agriculture, number of family members, and income for farmers).

In the study of Khalifa and Saad al-Din (2006) on the trends of farmers in the Damar locality towards the indicative radio program, the results have shown that farmers have a negative attitude towards the form of the program and the arrangement of its paragraphs in addition to the language used in the program. Needs for farmers.

In a study (Yahaya & Badiru 2002) where the purpose of this study was to evaluate the performance of two Nigerian agricultural programs that have been broadcast for a long time in the research area, one through radio and the other through television, they are received and followed by (198) randomly chosen farmers in the state of (Oyo) Southwestern Nigeria. The results indicated a very positive evaluation of each of the paragraphs of both programs and their importance in improving agricultural production through (12) sensory or cognitive dimensions. And nearly two thirds of those who responded to the study follow both programs. Although the radio is currently being heard and followed by farmers with a greater percentage of television, they realize at the same time that the TV program provides them with useful information as well.

#### **The research aims to:**

- Knowing the degree of importance of agricultural extension radio programs from the point of view of farmers in Al-Qosh, Nineveh Governorate)
- Knowing the location of agricultural extension radio programs from among the sources of agricultural information upon which farmers depend to increase their agricultural knowledge
- Finding the correlation between the degree of importance of agricultural extension radio programs and each of the following independent variables (age, educational attainment, social standing, cultural openness, and devotion to agricultural work).

#### **Materials and Methods**

The research community included all the farmers of Al-Qosh district, who numbered (1173) farmers, distributed in (36) villages. To determine the sample of the research, the researchers used the random multi-stage sample method. In the first stage, 25% of the villages affiliated to the district were taken as they represented (9 villages). The number of farmers in the 9 villages reached 561, and 25 farmers were excluded, which included measuring the stability of the questionnaire. Then this stage was followed by a random sample withdrawal of (16%) of the total number of farmers in the (9) villages. That is, by (85 farmers) and as shown in the table below:

**Table 1 :** Shows the sample of research

ت	25% Of the total villages included in the sample	Total number of farmers in each of the villages in the sample	16 % From the number of farmers in each village
1	Busan	72	12
2	Khushaba	23	3
3	Bites	70	11
4	Suresh	38	6
5	Honorary	26	4
6	Nasiriyah	16	2
7	Biban	56	9
8	Alqosh	125	20
9	A wreck	110	18
-	Total	365	85

For the purpose of data collection, a questionnaire was prepared consisting of two parts: Part one: It included some personal, social and economic characteristics of farmers in the area of Al-Qosh, represented by (age, academic achievement, social status, devotion to agricultural work, cultural openness). Where age was measured by the number of years. As for academic achievement: - This variable was measured by allocating numerical codes, which are (1, 2, 3, 4, 5, 6) for each of (mom, read and write, primary, intermediate, middle school, university), respectively. The social status was measured by (Mukhtar, an ordinary farmer, a clan sheikh, head of the thigh, a religious scholar, a government employee) given numerical codes (1, 2, 3, 4, 5, 6), respectively, while the devotion to agricultural work was measured. By assigning numerical codes which are (3, 2, 1) respectively according to levels (I work in the field of agriculture only, I work in the field of agriculture with other additional work, I do not work in the field of agriculture). Civilization openness: This variable was measured through (10) indicators of civilization openness, for which the following levels were allocated (always, sometimes, not) and the following weights were allocated (3, 2, 1), respectively, and thus the theoretical range of the cultural openness variable for farmers ranges between (10-30 degrees). As for the second part of the questionnaire, it included (25) items to measure the importance of agricultural radio programs, which were identified after reviewing the previous studies and the sources that concern the topic of research, and before each paragraph, three alternatives to the answer were (great importance, medium importance, Little importance) and we

have assigned it weights (3, 2, 1) respectively Achieve the apparent sincerity of the test by presenting the paragraphs to the experts and specialists in agricultural extension to know the extent of measuring the test items for the purpose that was set for it outwardly in terms of the type of paragraphs and the method of writing them and the extent of their clarity, the extent of the accuracy of the test, how to answer his questions, and exclude the invalid from them. The researchers relied on an agreement rate (80%) to maintain the paragraphs and not delete them, and thus the scale is in its final form of (18) paragraphs. The consistency of the questionnaire (tool) was extracted using the Alpha Cronbach method because this method is used to estimate the stability of trends and opinion polls, and this method gives a limit The A minimum value for the estimated coefficient of persistence (Al-Nabhan, 2004). The consistency coefficient in this method has reached (0,832) and the scale is considered constant if the value of its coefficient of stability is more than (0,70). Data collection and compilation were statistically analyzed using Mathematical Averages, and Kay Square (Al-Qurashi, 2007).

## Results and Discussion

**The first objective:** To know the degree of importance of agricultural extension radio programs from the point of view of farmers in the Alqosh region / Nineveh Governorate Table No. 2 illustrates the importance of agricultural extension radio programs from the perspective of farmers in the Alqosh area / Nineveh governorate.

**Table 2 :** Shows the importance of agricultural extension radio programs in Al-Qosh suburb

Sl.	Categories of the importance of agricultural extension radio programs	Number	Percentage
1	(22 -29 ) high	14	16.47%
2	(30-41) medium	47	55.29%
3	(42-52) little	24	28.23%
	Total	85	100%

$\bar{X}$  =35.4

S.d=5.3

Table (2) shows the distribution of the respondents according to the extent of the importance of agricultural extension radio programs. The grades expressing the extent of the importance of agricultural extension radio programs have been divided into three categories using the mean and standard deviation, since the standard deviation was combined with the arithmetic mean first, and then the standard deviation with the arithmetic mean was subtracted. Secondly, to define the boundaries of the middle category, which ranged between (30 - 41) degrees, and the lowest

degree expressing the extent of the importance of agricultural extension radio programs (22), while the highest value (52) was reached, thus determining the first category that includes farmers who believe N programs that radio guidance of agricultural little importance by (16.47%) either farmers who believe that the radio programs of extension of agricultural importance amounted to a large percentage (28.23%) degree as shown in Table (1). It is clear from this result that the extent of the importance of agricultural extension radio programs is moderate, which tends to rise. This indicates that

the majority of farmers emphasize the importance of agricultural extension radio programs, given their usefulness in all respects.

**The second objective:** To identify the location of agricultural extension radio programs from among the

agricultural information sources on which farmers depend to increase their agricultural knowledge: Table No. (3) shows the location of agricultural extension radio programs for agricultural information sources.

**Table 3 :** Shows the rank of agricultural extension radio programs among a total of agricultural information sources.

Sl.	Agricultural information sources	Frequency	Rank
1-	Agricultural specialists in the agricultural departments	10	1
2-	Agricultural consulting offices	9	2
3-	Agricultural extension books and brochures	8	3.5
4-	Agricultural courses and seminars	8	3.5
5-	Agricultural scientific journals	7	5.5
6-	Agricultural radio programs	7	5.5
7-	Agricultural equipment agent	6	7.5
8-	Faculties and agricultural institutes	6	7.5
9-	The agricultural guide in the agricultural people	5	9.5
10-	Agricultural TV programs	5	9.5
11-	Local rural leaders from the same village and neighboring villages	4	11.5
12-	Other farmers from other regions	4	11.5
13-	Internet information network	3	13
14-	Agricultural exhibitions	2	14
15-	Agricultural research stations	1	15
	<b>Total</b>	<b>85</b>	

The agricultural information sources were arranged according to the opinions of the farmers, after which the data were emptied and the frequency of the agricultural information sources was revealed, indicating that the source of the information (the agricultural specialists in the agricultural departments) came first if he got the highest frequency by the farmers, and the reason may be that the farmers are reviewing the departments Agricultural and agricultural people on an ongoing basis and may inquire from agricultural specialists if they have a problem and thus they consider them an important source of information for them, while the source of information (agricultural research stations) came in the last place, where he got the lowest frequency This is due to the lack of agricultural research

stations located in the city of Mosul, and thus farmers' reliance on research stations as a source for them. As for the arrangement of agricultural extension radio programs, it ranked sixth. This indicates that farmers do not always rely on extension radio programs. Agricultural, due to the lack of agricultural extension and broadcasting programs and their unavailability and broadcast throughout the year, and this leads to farmers relying on other agricultural information sources to increase their agricultural information.

**The third objective:** Finding the correlation between the degree of importance of agricultural extension radio programs and each of the following independent variables (age, academic achievement, social standing, cultural openness, and devotion to agricultural work).

**Table 4 :** Shows the correlation between the importance of agricultural extension radio programs and research variables

Sl.	Categories	Numbers	Percentage	The collected chi-squared value	Chi-Square value at 0.05
	<b>Age</b>				
1	(30 – 42 )year	22	27%	6.731	9.487
2	(43 – 55) year	19	23%		
3	(56 – 68) year	44	50%		
	Total	85	100%		
	<b>Level of education</b>				
1	Illiteracy	3	4 %		
2	Reads and writes	13	15%	16.497	18.3070
3	Primary	22	26%		
4	Secondary	17	20%		
5	Prep	20	24%		
6	University	10	11%		
	Total	85	100%		
	<b>Social status</b>				
1	Mokhtar	3	4%		
2	Ordinary farmer	48	56%	18.497*	18.3070
3	Sheikh clan	5	6%		
4	Thigh head	2	2%		

5	Religion Scientist	3	4%		
6	government employee	24	28%		
	Total	85	100%		
	<b>Civilization Openness</b>				
1	10 -16 low	14	16		
2	17- 23 medium	27	32	10.486 *	9.487
3	24-30 high	44	52		
	Total	85	100%		
	<b>Full-time agricultural work</b>				
1	I work in the agricultural field only	41	48.2%		
2	Work in the agricultural field with other additional work	36	42.3%	9.986*	9.487
3	I do not work in the agricultural field	8	9.4%		
	Total	85	100%		

**Age:** It is clear from Table (4) that the highest percentage of respondents fell within the third category (56-68) at a rate of (50%) and to find the correlation between the age variable as an independent factor and between the importance of agricultural extension radio programs as a dependent factor, the value of chi- square was used. And its calculated value was (6,731) degrees, which is less than the tabular value at the level of significance 0.05, and this indicates that there is no significant correlation between the two variables, and this may be due to the fact that farmers of all ages are listening to agricultural extension radio programs and listening to programs is not limited For a certain age.

**Academic Achievement:** From Table (4), it is clear that the highest percentage of respondents were holding a primary certificate if they reached (26%) and to find the correlation between the academic achievement variable as an independent factor and the extent of the importance of agricultural extension radio programs as a dependent factor. Chi- square and its calculated value was (16.497) degrees, which is less than the tabular value at the level of significance (0.05). This indicates that there is no significant correlation between the two variables. This may be due to the fact that listening to radio programs does not depend on the farmer getting an achievement A specific study as the radio program as a means of extension Friendly connote educated and illiterate alike.

**Social Status:** It is clear from Table (4) that the highest percentage of the respondents were ordinary farmers as they reached 56%) and to find the correlation between the social status variable as an independent factor and between the importance of agricultural extension radio programs as a dependent factor the square value of chi-squar was used and Its calculated value was (18.497 \*) a degree which is higher than the tabular value at the level of significance (0.05) and this indicates a significant correlation between the two variables and this may be due to the fact that ordinary farmers care more about agricultural extension radio programs than others because they need To new information useful to them at Agricultural matters in general, unlike others, may be busy with other matters and have no time to take care of agricultural extension radio programs

**Civilization openness:** It is clear from Table (4) that the highest percentage of respondents was high cultural openness if their percentage reached (52%) and to find the correlation between the cultural openness variable as an independent factor and between the importance of agricultural extension radio programs as a dependent factor, a chi-square was used and its calculated value (10.486 \*) was a degree which is

higher than the tabular value at the level of significance (0.05) and this indicates a significant correlation between the two variables and this may be due to the fact that farmers who have a high cultural openness are interested in agricultural extension radio programs and that Because of their love for innovation, change and intrusion Be aware of all that is new and benefit from the agricultural information that is broadcast through the agricultural extension radio programs

**Full-time agricultural work:** It is clear from Table (4) that the highest percentage of respondents work in the field of agriculture only if their rate reaches 48.2% and to find the correlation between the cultural openness variable as an independent factor and the extent of the importance of agricultural extension radio programs as a dependent factor has been using chi- square and its calculated value was (9.986) degrees, which is higher than the tabular value at the level of significance (0.05), and this indicates a significant correlation between the two variables, and this may be due to the fact that farmers who work in the field of agriculture only are more interested in extension radio programs Agricultural because of their need for these programs not It provides solutions to some of the problems they face.

#### In light of the previous results, we conclude the following:

- We conclude that agricultural extension radio programs have an important importance for farmers, because the material broadcast through radio programs has its effective impact, as it has the ability to reach at any time and any place to the target audience.
- We conclude that the agricultural extension radio programs came in sixth place. This indicates that they do not rely on agricultural extension radio programs mainly as a source of agricultural information, but rather they depend on other agricultural sources to increase their agricultural information.
- The importance of agricultural extension radio programs in the research area is related to the position of social farms, devotion to agricultural work and cultural openness, regardless of the age of the farmers and their educational level.

#### Recommendations

- The authorities responsible for preparing agricultural extension radio programs should take into account the agricultural conditions of the research area due to the need of farmers to these programs in order to be effective, finding appropriate solutions to the problems

faced by farmers in addition to developing the rural community.

- Broadcast agricultural extension programs in a time when the largest number of target audiences can benefit from the program and listen to it and not broadcast it at times when the farmer is busy with agricultural work.
- We also recommend increasing the participation rate of farmers and opinion leaders in the program preparation paragraphs, as this has a positive impact in attracting farmers to follow the program on an ongoing basis.
- Carrying out similar studies for this research targeting other variables related to agricultural extension radio programs in the future.

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