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Problems which were facing the local rice crop farmers in Agra region and its relationship with some variables

ABSTRACT

The study aims to define the problems facing rice farmers in Aqra, as well as to identify the relationship between the problems and each of the independent variables (age, educational level, cultivated area, number of working years). The final research sample reached (100) respondents excluding the sample of pre-test of (20) respondents, data were collected by means of the questionnaire form which consisted of two parts, the first of which, the independent variables studied, and included the second part, the dependent variable and included (30) problems, and the validity of the form was confirmed by presenting it to specialists in agricultural extension and was distributed to a sample A preliminary (pre-test) to ensure its reliability.

The results of the study showed that the highest problem take the first rank was (the lack of support and interest of the state in the crop and rice growers) and the least problem was (the lack of modern techniques used to harvest the rice crop), and the study showed a significant correlation between the problems and each of the following variables, age ,The educational level, the cultivated area, the number of working years, and the researchers recommended the need to address the problems facing the farmers through appropriate treatments for each problem as well as the state's interest in farmers by providing their requirements and needs And support them financially and morally**.**

Introduction and research problem

Most of the world's population depends on their food for cereals, which are estimated about (90%) of the total population of the world, especially wheat and rice crop. Which consider main crops in providing food to the world's population. Rice is the most important cereal crop in developing countries, and this importance reflects the annual global production of rice, which is estimated about 518 million/tons in 89 countries, which is the main food for more than half of the world's population (Al Younis et al. 1987: 33). This global rice production is not enough to meet the needs of humans, as it should be increased to 800 million tons to meet the demand for the year of rice 2025 (Cass man,1999:595) .And to ensure food security for rice-consuming countries In the world, global production must increase from more than 50% with improving the quality to meet the demand for 2025. This additional increase must be achieved with the least amount of (the areas of

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land, seeds, water, labor and agricultural chemicals), and in fact the extent of expansion in cultivating land New is usually limited, as the land planted with rice has been shrinking in several Asian countries due to many problems, the most important of which are civil and industrial needs and lack of water in addition to the deterioration in soil composition and fertility and the increase in the costs of high-yielding varieties and chemical fertilizers, bush pesticides, diseases and insects, which is borrowed with limited purchasing power of farmer. (Zheng et al, 2004: 11) . Cereal crops are of fundamental importance in building human life because they are important strategic crops because they have played a fundamental role in building civilizations and are still .

Despite the industrial and technical progress in the world, the increase in agricultural production, especially grains, is a subject of concern to many countries of the world. The most important reasons for this are the problem of food shortages and the increasing demand for these materials as a result of the rapid increase in the population and the inability to meet their food needs. On this basis, agricultural policy Countries of the world and their plans aim to expand horizontal agricultural production dependent on the reclamation and cultivation of new lands, especially in areas where arable land is available, as well as attention to vertical production by increasing the productivity of each element. Decide And determining on the best methods in the production process and access to high crop structure using the latest advanced technology (Kashkool, 2012, 55) Rice is one of the important cereal crops in Iraq and comes third rank in terms of the area planted after wheat and barley. But the area grown with rice in Iraq is unstable and changes according to the abundance of water, and that the production of one kilo of rice requires (3000-5000) liters of water and this The quantity is three times what the rest of the plants need as it receives 24-43% of the world's water (Al-Mashhadani, 2011, 512)

There are many problems that stand in the way of advancing this nutritional strategic crop in Iraq, especially the northern regions of it, where it is sown in large quantities in it and so to provide Suitable conditions for him in that region where good soil. The abundance of rain and the abundance of underground water and the sweetness of its water.

Aqra region located in northern Iraq from Dohuk governorate is still rich with cultivation of this promising crop, and despite the availability of some favorable conditions for the cultivation of local rice varieties such as((Anbar, Al-Naima, Al-Mawlani, Al-Huwaisawi, Al-Nukaza, Bazian and Yarit)) in Aqrah region, however, the cultivation of a crop Rice in suffers from some problems that stand in the way of advancing this strategic crop and described as real and high problems and in need of solutions to confront them..

Hence, the idea of the current research came to answer the following research questions :-

What are the problems facing local rice farmers in Aqra distract - Dohuk Governorate?

What is the order of the problems according to their priority for rice?

What is the relationship between the problems of local rice farmers in Aqra / Dohuk Governorate and each of the following studied variables:- (age, educational level, cultivated area, number of years of work, type of cultivated variety) ?

Research Objectives

1-Determine the problems facing local rice farmers in Aqrah district of Dohuk Governorate.

2-Determine the correlation between the problems of the farmers of the local rice crop in the Aqra distric - Dohuk Governorate and each of the following studied variables (age, educational level, cultivated area, number of years of work).

3-Arrange the problems according to their priority for rice farmers in Aqra district.

Research importance

The importance of the research lies in the strategic importance of the rice crop as an important food crop in human life that cannot be dispensed in any way, as it is the second crop after the wheat crop in terms of food and industrial importance. As it occupies a large part of the basic daily food and its starchy grains are the most important source of carbohydrates and calories, in addition to containing protein substances, vitamins and some salts that go into building the body .

Statistical hypotheses

1-There was no correlation between the problems of local rice farmers in Aqra distract / Duhok governorate and the **age.**

2-There is no correlation between the problems and problems of local rice farmers in the Aqrah / Duhok Governorate and the educational level.

3-There is no correlation between the problems of of local rice farmers in Aqra / Dohuk Governorate and the cultivated area.

4-There is no correlation between the problems of local rice farmers in the Aqrah / Duhok Governorate and the number of years of work..

Procedural definitions

Problems: - The determinants and obstacles that stand in front of rice farmers.

Rice farmers: - Anyone who farms rice in Aqrah and owns agricultural land.

Materials and methods of work

Research Methodology:- The descriptive approach was used in the current research because it is the most appropriate research methodology, and it provides real descriptive data on the reality to be studied, and the reality is described accurately.

Search area

 The research area is confined to Aqrah district of Dohuk Governorate, which includes a wide geographical area of agricultural land planted with the local rice crop

 Population and research sample:-

The study included all local rice farmers in Aqra district, who numbered approximately (250) farmers, and a random sample of(40%) of them was chosen. The number of respondents became **(100) .**

Data collection tool

The questionnaire was used as a tool to collect data related to the subject of research and in a personal interview with farmers. The questionnaire form consisted of two main parts:-

The first part: - The in dependable variables: include (age, educational level, cultivated area, number of years working in rice cultivation). And it was measured as follows:-

Age: measured by giving one grade for each year- 1

2-The educational level: It was measured on a scale consisting of seven alternatives, and each alternative was given numerical symbols, as follows: illiteracy (1) reads and writes (2) intermediate (3)) secondary school (4) diploma (5) Bachelor's

3-The cultivated area: It was measured by giving one degree per donam

4-Number of years of rice cultivation: It was measured by giving one grade for each year of work

The second part: The dependent variable, which included the scale measured the problems facing rice farmers as follow:-

This variable included the problems that the rice grower is supposed to experience in Aqrah / Duhok Governorate, and it was measured on a triple scale consisting of (20) items, and alternatives

(large, medium, and small) were assigned to him and the following symbols were given (3,2,1) Respectively

1 – Measurement of Validity

Superficial validity:- is the extent to which the scale meets the purposes and special uses for which it was designed (Michael, 255: 2006). In order to verify the superficial validity and for the purpose of ascertaining the validity of the paragraphs represented by the problems and then the validity of the scale consisting of (23) problems presented to the specialists and experts in The Department of Agricultural Extension and Field Crops at the University of Mosul and the University of Duhok, and expert suggestions were taken on some changes and changes, thus (3) paragraphs were deleted, so the number of final paragraphs of the problems became (20) paragraphs, thus the questionnaire became ready to collect preliminary data.

Scale of reliability

Reliability means the Reliability of the results if the scale was repeated after a while on the same group of individuals (Arifj, 1999: 89). In order to find Reliability, a randomly selected sample(pre-test) of 20 respondents was removed from the research sample, the purpose of which is to ensure clarity of the questions

For the purpose of finding the Reliability factor for the scale paragraphs and its validity, after that the Reliability factor was found using the Alpha-Gronbach method because this method uses:-

To estimate the consistency of attitudes and polls.-1

It gives the minimum estimated value of the Reliability factor-.2

3-The value the Alpha-Gronbach depends on finding the relationship between the variance of each vertebra and the overall variance.

(Allam, 2009: 100) Mension that if the value of the Reliability factor is (0.80) or more, then it is considered acceptable

It indicates the Reliability of the scale, but (Murad and Amin, 2002,260) stated that if the value of the Reliability factor is reached More than (0,70) is considered acceptable, and the value of the Reliability factor of the dependent variable is 77%. This value is considered acceptable…

Data collection

After collecting the data for the pre- test and after confirming the clarity of the questions for the independent factors and adjusting some of them and ensuring the Reliability of the scale paragraphs of the dependent variable, the form became ready to collect the final data, and it was distributed to a sample of (100) respondents

Statistical means

After completing the collection of data and then checking, emptying and tabulating them in organized tables on the Excel program according to the research objectives, I analyzed using SPSS)Package Social Sciences Statistical **(Al-Baldawi, 2009, 132)** and some other statistical means:-

1-Frequency

2-Percentage

3-Range

4 -Mean

Results and discussion

The first objective: Determining the level of rice farmers' problems in Aqrah / Duhok Governorate.

The results showed that the numerical values expressing rice farmers' problems in the Aqra region ranged between (36-54) with an average of (45.7) and a standard deviation (5,1) on a theoretical

scale whose minimum (20) and high (60) values were divided. The respondents were divided into three categories using the rang, as shown in Table (1)

Distribution of respondents according to the level of problems

N	Categories	Fre	%	Avarge
1	Low (36-41)	15	15	38,8
2	Mid (42-47)	45	45	45,5
3	HIGH (48-54)	40	40	51
Total		100	100%	

It is clear from Table (1) that the highest percentage of respondents was in the middle category and reached (45%) of the respondents, followed by the high category and their proportion was (40%), so the level of rice farmers' problems in the Aqrah area is described as medium and tends to rise and perhaps This is due to the weak of extension activities to confront the problems of rice farmers, which have been described by farmers as real and high problems and need solutions to address them

 The second objective: to determine the relationship between the rice farmers' problems in the Aqrah area and each of the following studied variables:-

- Age: -1

The respondents were distributed according to the extent to three Categories, and the highest percentage was in the middle category, which amounted to 36%), as shown in Table(2)

Table (2): Distribution of rice farmers according to age

Categories	freQ	%	Middle	Pearson corrlation	T	T table	∞
Low (35-43)	29	29	37.4	0.337	1.13	1.671	N.S
Middle (44-52)	36	36	48.25				
High (53-61)	35	35	55.7				
	100	100	100				

   To find the relationship between rice farmers' problems and the age variable, use the Pearson correlation coefficient of (0.333) and indicate a positive correlation between the two variables. To check the significance of the relationship, use the test (t) whose value is (1.13) and when comparing it with the value of (t) The spreadsheet was found to be not significant, so it accepts the statistical hypothesis, and the reason for this may be that the age of farmers is not considered a sign for identifying their problems related to rice cultivation in the Aqra area.

The educational level of the farmer:--2

     The respondents were distributed according to the extent to four categories, and the highest percentage was in Intermediate study category, which amounted to 25%), as shown in Table (3)

Table (3): Distribution of rice farmers according to educational leve

Categories	freQ	%	Rs	(t) Test	T table	∞	
Illiteracy	24	24	0,521	1,732	1,671	0,05*	
Intermediat	25	25					
Preparatory	23	23					
Dipioma	7	7					
TotaL	100	100 %					

To find the relationship between rice cultivation problems and the educational level variable, use the rank spearman correlation coefficient of (0.521) and indicate a correlation relationship between the two variables and to test the significance of the relationship, the value of (t) that reached (1.732) was calculated and compared with the tabular (t) it turned out to be significant At the level of significance (0.05), therefore the statistical hypothesis is rejected, and the alternative hypothesis which states (there is a significant correlation between the problems of the cultivar in the Aqra region and the educational level is accepted, and this may be attributed to the higher the educational level of the farmers, the more experience in discovering and distinguishing problems Especially.

3- The number of years of rice cultivation

The respondents were distributed according to the extent into three categories, and the highest percentage was in the high category, reaching (41%), and as shown in Table (4) ;-

Table (4) Distribution of rice farmers according to the years of work in cultivating local rice

Categories	Freq	%	$\overline{x}$	R s	T))	(T) table	∞
Low(12-20)	36	36	16	0,160	0,724	1,671	0,05
Middle(21-29)	23	23	25				
High(more30)	41	41	35				
Total	100	100 %					

To find the relationship between rice farmers 'problems and the number of years of work in rice cultivation, use the Pearson correlation coefficient of (0.160) and indicate a positive correlation between the two variables. (t) The tabular was found to be significant at the level (0.05). Therefore, it rejects the statistical hypothesis, and accepts the alternative hypothesis which states (there is a significant correlation between rice farmers 'problems and the number of years of working in rice cultivation). This may be due to the fact that rice farmers have experience with problems The period of their work in the cultivation of the rice crop that faces them throughout the years is sufficient to identify the problems of rice growers in the Aqrah region.

4- The cultivated area:-

The respondents were distributed according to the extent to three categorys, and the highest percentage was in the low category, which reached (68.2%), as shown in Table (5).

Table (5): The distribution of rice growers according to the cultivated area

Categories	Freq	%	$\overline{x}$	R s	T))tset	(T) table	∞
Low(1-6)	68	68	3	0,008	0,035	1,671	0,05
Middle(7-12)	18	18	11	$\overline{x}_{6,3=}$			
High(more13)	14	14	13				
Total	100	100 %					

To find the relationship between the problems of rice farmers and the variable cultivated area, the Pearson correlation coefficient used, which has a value of (0.008), and indicates an apparent relationship between the two variables. The reason for this may be that the cultivated area has no relationship in determining the real problems of rice farmers in the Aqra area.

Fourth Objective: - Determine the problems facing rice farmers in Aqra distric / Dohuk Governorate, according to its priority

The results of the study showed that rice farmers in Aqra / Duhok governorate face many problems and have been arranged in descending order according to their importance and priority, as shown in Table (6) ;-

Table (6) shows the order of the problems of local rice farmers according to their importance according to the percentage weight, and it was found that the problem that came in the first rank is: the lack of support and interest of the state in the crop and rice farmers, where the percentage weight was 55%, where this problem occupied the first rank and this indicates The weakness of the measures taken by the specialists in agriculture on how to solve the problems facing them despite their diagnosis by researchers, while the problem (the lack of modern techniques used to harvest rice) came in the last rank where the percentage weight was 10%, and the reason may be due to the existence of techniques Modern but does not meet the need and may be considered sufficient to perform Purpose, and the rest of the problems were arranged between them, and this indicates that there are real, real problems despite their recurrence in varying proportions, which requires standing at them to address them and find appropriate solutions to them

Table (6) Arranging the problems of rice farmers in Aqra / Duhok Governorate in descending order, according to their importance

Problems	frequency	%	Rank
Lack of state support and attention to rice crop and cultivators	1	55	55
Availability of diseases affecting the crop	2	53	53
Lack of labor	3	51	51
Lack of interest in developing local Varieties	4	48	48
Lack of chemical fertilizer	5	45	45
Lack of agricultural extension agents	6	40	40
Low availability of cold stores for rice seed	7	37	37
Poor local crop production	8	36	36
Lack of interest in high-yielding varieties.	9	34	34
High prices of pesticides.	10	32	32
The lack of cultivated areas for rice crop	11	30	30
Lack of crop service equipment	12	29	29
High prices for renting the necessary equipment for agriculture and harvest	13	27	27
Foreign crop competition and low domestic crop price	14	21	21
The spread of pests and insects	15	20	20
Reduced availability of improved seeds	16	18	18
Lack of preparation for plant protection specialists	17	17	17
Increased soil salinity	18	15	15
The lack of modern equipment to grow the crop	19	13	13
Lack of modern technologies used to harvest rice	20	10	10

Conclusions and recommendations
First: Conclusions
The results of the study showed the following
1-There are major real and logical problems facing rice farmers in the Aqra area of Dhouk Governorate.
2-There are variables that have an apparent relationship with the problems of rice farmers in the Aqrah region, such as (two variables of the educational level. The area planted with the rice crop in the Aqrah region..
3-There is a non-significant positive relationship between the variables of age and the number of years of work in the rice crop cultivation and the problems of rice farmers in the Aqra area..
Second: Recommendations
1-Providing rice farmers with Agri. Extension information a to solve rice farmers' problems in Aqra distric..
2-Not to consider the changes that showed dorsal and non-significant relationships when identifying problems of rice farmers in rice growing regions.
-Study other variables related to rice farmers problems in Aqra area

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