

REALITY OF THE ACTIVITIES CARRIED OUT BY EXTENSION FARMS PROVIDING EXTENSION SERVICES TO THE FARMERS OF THE CENTRAL EUPHRATES PROVINCES

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ABSTRACT

This study was aimed to identify the reality of the extension farm activities in providing extension services to the farmers of the middle Euphrates governorates. The study was included 54 paragraphs divided into 3 axes outline which included: extension activities implemented inside the extension farm, extension activities implemented outside the extension farm, coordination activities and participation with relevant institutions. A random sample of 60% of the extension farms in each governorate was selected using a questionnaire from a random sample of 41 respondents. The research results were activities of applying scientific research results, with a degree of 1.4 degrees which is less than the hypothetical mean for the scale of 1.5 degrees, and activities of multiplication program of high-class seeds, with a degree of 55%. The activities of using modern means of communication, with a degree of 1.1, and activities to encourage agricultural innovation, with a degree of 1.4, which is less than the hypothetical mean for the scale of 1.5 degrees. The activities of interaction with stakeholders, with a degree of 2.55, which is higher than the hypothetical mean for the scale of 2.5 degrees, and coordination activities or partnerships with a degree of 1.2, which is less than the hypothetical mean for the scale of 1.5 degrees. It could be concluded from the results that weakness of the various extension farm activities inside and outside its borders, and in the activities of coordination and participation.

Key word: Research findings application, encourage agricultural innovation, coordination and participation

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تويج والطائي

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واقع نشاطات المزارع الإرشادية في تقديم خدماتها الإرشادية للفلاحين في محافظات الفرات الاوسط

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باحث

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المستخلص

يهدف البحث تعرف على واقع نشاطات المزارع الإرشادية في تقديم خدماتها الإرشادية للفلاحين في محافظات الفرات الاوسط. و تحقيقاً للأهداف فقد أعد مخطط ، اشتمل على 54 فقرة توزعت على ثلاثة محاور : النشاطات المنفذة داخل المزرعة الإرشادية، والنشاطات المنفذة خارج المزرعة الإرشادية، ونشاطات التنسيق والمشاركة مع المؤسسات ذات العلاقة. اختيرت عينة عشوائية 60% من المزارع الإرشادية في كل محافظة، جمعت البيانات بواسطة استبانة من عينة عشوائية بلغت 41 موظفاً إرشادياً. خلصت نتائج البحث الى الآتي: عدد النشاطات المنفذة في داخل المزرعة الإرشادية للسنوات 2017,2018,2019 تشكل نسبة 55%,61%,50% من المقرر لها، ونشاطات تطبيق نتائج البحوث العلمية 1.4 درجة وهو اقل من الوسط الفرضي البالغ 1.5 درجة، ونشاطات برنامج اكثار بذور رتب العليا نسبة 55%. عدد النشاطات الإرشادية والتدريبية في خارج المزرعة الإرشادية للسنوات 2017,2018,2019 تشكل نسبة 11%,27%,18% من المقرر لها، ونشاطات استخدام وسائل الاتصال، ونشاطات تشجيع الابتكار، 1.1 درجة، 1.4 درجة بالتتابع وهو اقل من الوسط الفرضي البالغ 1.5 درجة، ونشاطات المتابعة 2.6 درجة وهو اعلى من الوسط الفرضي البالغ 2.5 درجة. نشاطات التفاعل 2.6 درجة وهو اعلى من الوسط الفرضي 2.5 درجة، ونشاطات التنسيق او المشاركة مع مؤسسات 1.2 درجة وهو اقل من الوسط الفرضي 1.5 درجة، وتكامل النشاطات الإرشادية 2.4 درجة وهو اقل من الوسط الفرضي 2.5 درجة. ويستنتج ضعف النشاطات الإرشادية المتنوعة في داخل وخارج المزرعة الإرشادية ونشاطات التنسيق والمشاركة.

الكلمات المفتاحية: تطبيق نتائج البحوث، تشجيع الابتكار الزراعي، التنسيق والمشاركة

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INTRODUCTION

The existence effective as efficient agricultural extension is one of the requirements for increasing production, improving farmers' incomes with protecting, developing, sustaining natural resources, and preserving the environment (6,8). It has great importance response and addressing the challenges faced by farmers in particular and the agricultural sector in general, and its activities in agricultural development (17). The extension service defines as a various activity that provides information and services requested by farmers and other sectors in rural environments to help them develop their technical, organization and administrative skills, which improve their livelihoods and welfare (15). In most countries of the world, the government is the main provider of extension services through its network of extension organizations and units distributed in rural areas(9,14). In all cases, an extension organization represented by the units and their workers are provided this service, where the levels of organization vary into central, decentralized, governorate, and district. These organizations have activities according to the objectives and tasks and duties of the extension agent in the region or country, and the nomenclature of these extension units may vary, such as extension units associated with the agricultural division and extension farms associated with the extension and training center in the governorate (7). The extension farms are a modern extension organization that Iraq witnessed due to the importance of field activities and their expansion in all areas of the rural community. Extension farms emerged according to a chronological sequence that ultimately includes most of the agricultural areas in Iraq, which their proposed number reached 182 extension farms, as 62 extension farms have been constructed, representing 32% of the planned or proposed for them. They are distributed in all governorates of Iraq - except for the Kurdistan Region - to be a source of educational extension radiation, that changing the behavior of the peasant family members. It is an organization that includes a group of extension units that carry out various activities required to achieve the objectives of the extension farm, and it is associated with

the extension and training center in the governorate, and a set of goals and activities have been defined for it (13). The challenges faced by farmers and other working groups in agricultural activity require that the extension activities in general and the extension activities provided by extension farms in particular be effective and based on meeting the needs of farmers and the requirements of their agricultural activity(1).The current stage requires improving the efficiency and effectiveness of the extension activities by the extension farms as the extension line connected to the farmers. This raises the question: what is the reality of the activities carried out by the extension farms ? This study was aim to identify the reality of the extension farm activities in providing extension services to the farmers

MATERIALS AND METHODS

Research methodology

This research comes within the framework of surveys that falls within the descriptive curriculum, which is based on describing reality and accessing facts by collecting certain data that are relevant to an organization, management, or community(3,5).

Investigation area

The research community includes all 20 extension farm that were disturbed (7, 5, 4, 4) at the provinces of the central Euphrates Babylon, Karbala, Najaf, Diwaniyah(18). With, all the extension employees working the extension farms - manager, unit officer, implementer - totaling 67 employees.

Society and research sample

A proportionate stratified random sample of 60% of the extension farms at each governorate was selected, their numbers 11 extension farms, distributed over (4,3,2, and 2) Babylon, Karbala, Najaf, and Diwaniyah cities. The employee community was chosen from managers and extension employees for the research sample due to their small number, 41 extension employees were distributed on 11 managers, 30 employees.

Scales building

1- prepare a preliminary outline of the research fields, axes, and paragraphs, distributed among its objectives, which is consisted of 54 paragraphs divided into 11 fields, divided into 3 axes, according to the research objective.

2- The validity of the test means its ability to measure what it was designed for, which is the degree to which the scale can achieve its objectives (10). In order to identify the validity of the questionnaire, it was presented to a group of experts and specialists in the field of agricultural extension to measure the face validity and content validity.

3- Research chart was presented in its initial form to 12 experts from the faculty of the Agricultural Extension Department of the Faculties of Agriculture at the University of Baghdad, Mosul, Kut, and Dhi Qar, using a questionnaire that included the chart components, axes, fields, and paragraphs. The researcher requested them to indicate the agreement level of each area, axis, and paragraph according to the agreement scale consisting of agree, agree with modification, disagree, with their proposals. This procedure was to verify the validity of charts and scales, as experts are a primary source in verifying the validity of charts and scales (19,2).

4- A numeric value for the expressions of expert agreement scale was determined on the

chart's components, (0,1,2) respectively. The weighted mean for the agreement was calculated, the cut-off point was determined at 75% of the expert's agreement for any component of the chart in its initial form (16). An arithmetic mean of the expert agreement degrees was calculated for all components of the initial chart, where all of them obtained an agreement percentage ranging from 79% to 98%.

5- In light of the results achieved in point 4, the final chart was prepared after arranging and modifying some of the paragraphs, (Table 1).

Stability of scale

To verify the reliability of the questionnaire, a sample of employees working in extension farms (outside the research sample) were selected. The reliability coefficient was calculated using the Cronbach's alpha equation (11). The values of the axes and fields of the working employees ranged between 0.75 - 0.97 degrees, for the period from 1/9 to 12/10/2020.

Table 1. Research chart in its final form

Objective	Axis	Field	Number of paragraphs
Identify the reality of the extension farm activities	Extension and training activities carried out on the farm	Extension and training activities carried out for farmers	7
		Research findings application	5
		Activity within the program of production of higher ranks	1
	Extension and training activities carried out outside the farm	Extension and training activities carried out for farmers	1
		Using the means of communication and modern technology	7
		Encouraging local farm innovation	4
		Monitoring and evaluation	13
	Coordination and participation with relevant institutions	Interact with stakeholders	7
		Coordination with relevant governmental and non-governmental institutions	5
		Participation with government institutions	2
		Integration with the program and related projects	2

RESULTS AND DISCUSSION

1. Activities inside the extension farm

1.1. Extension and training activities inside the extension farm: The results showed that all extension farms have a plan of their extension and training activities at a percentage of 100%. The results also showed that most of the extension farms did not had a

database of 73%, where the sources for obtaining the data were from the Agricultural Division, Peasants, and Peasant Associations at a percentage of 91%. The average implementation of activities within the extension farm amounted to 55% of the decision for the years 2017-2018-2019, and at the forefront of which are field observations

41%, followed by seminars 26%, training courses 20% and the lowest average for field day activities 7%, demonstration fields 5%.

The distribution of extension publications was not achieved during three years, Table 2.

Table 2. Total extension and training activities within the extension farms for the years 2017-2018-2019

Type of activities	2017	%	2018	%	2019	%	Average %
Demonstration fields	10	11	6	5	0	0	5
Extension seminars	24	26	47	36	17	17	26
Field days	10	11	11	9	1	1	7
Field observations	25	27	47	36	59	60	41
Workshops	0	0	0	0	1	1	3
Training courses	23	25	18	14	21	21	20
Extension Publications	0	0	0	0	0	0	0
Implemented activities	92	55	129	61	99	50	55
Scheduled activities	166	100	211	100	197	100	

Although all the extension farms had a plan for their extension and training activities, they lack an updated database and thus the absence of a clear vision in preparing these plans, which weakens the response and effectiveness of extension farm activities in facing challenges. Besides, keeping pace with the continuous changes in the agricultural, social and economic environment. It also concludes that the size of the implemented activities is does not match the size of the existing challenges and does not help to achieve the

goals, as well as most of them, are theoretical and mean that the opportunity to acquire skills and experience to farmers through practice and work in the activities of demonstration fields is lost.

1.2. Research application activities

Results of scientific research application activities that amounted to 5 paragraphs showed a weighted mean of 1.4 degrees and a percentage weight of 47 degrees, which is less than the hypothetical mean for the scale of 1.5 degrees, as shown in Table 3.

Table 3. Total activities of applying scientific research results in the extension farms

Seq.	Paragraph	Weighted mean	%	Weighted mean	%
1	Application of research findings	0.8	27	1.4	47
2	Application of research results practices in demonstration fields	1.33	44		
3	Invite farmers to see practices for research in demonstration fields	1.8	60		
4	Involving farmers in applying research practices in demonstration fields	1.56	52		
5	Inviting farmers to view the research results with the demonstration fields	1.8	60		

It could be concluded from Table 3, that there is a weak relationship and associations with research and scientific institutions, and this does not contribute to achieving the most important objectives of extension farms. The extension farm is supposed to be a true link for the transmission of scientific research results between farmers and other working groups in agricultural activity (21).

1.3. Activities of multiplication program of high-class seeds:

The activity results of the multiplication program of high-class seeds showed that 6 extension farms worked within the program during the years 2017-2018-2019, which constituted 55% of the total extension farms, as shown in Table 4.

Table 4 Total activities of multiplication program of high-class seeds for extension farms

seed production program	Frequencies	Total	%
	6	11	55

It could be conclude from Table 4 that there is a large percentage of the extension farms that

did not operate within the program of multiplying the high-class seeds, thus losing

an important and vital activity towards the farmers.

2. Activities outside the extension farm

2.1. Extension and training activities outside the extension farm: The results of the average implementation of activities outside the farm boundaries showed a percentage of 19% of the planned for the years 2017-2018-2019, and at

Table 5. Total extension and training activities outside extension farms

Type of activities	2017	%	2018	%	2019	%	Average %
Demonstration fields	1	6	0	0	0	0	6
Extension seminars	7	39	29	51	11	31	40
Field days	1	6	1	2	1	0.3	3
Field observations	3	17	10	18	10	29	21
Workshops	4	22	17	28	9	26	25
Training courses	2	11	0	0	4	11	7
Extension Publications	0	0	0	0	0	0	0
Implemented activities	18	11	57	27	35	18	19
Scheduled activities	166	100	211	100	197	100	

It can be concluded from Table 5 that the size of activities outside the extension farms does not correspond to and does not match the size of the existing challenges and does not help to achieve the desired goals. Most of them are theoretical to exchange information and experiences with specialists on a specific topic and thus miss an opportunity to acquire skills and experiences through practice and work in peasant fields or developing the activities of the extension farm in partnership with agricultural activity with farmers in their fields, This positively affects the strengthening of the presence of farmers at different times, direct supervision of the practices and

the forefront of which are seminars of 40%, followed by workshops, 25%, field observations of 21%. However, the lowest activities for field days 3%, demonstration fields 6%, and courses of 7%., while there was no distribution for extension publications during the three years, as shown in Table 5.

fieldwork of farmers, the demonstration of activity for the space of existence of the general peasants and its dissemination, as well as strengthening the relationship with the peasants and reducing the human and financial efforts of the extension farms.

2.2. Activities of using modern communication technology: The results of the activities of using technology and modern means of communication of 5 paragraphs showed a weighted mean of 1.1 degrees and a percentage weight of 38 degrees, which is less than the hypothetical mean for the scale of 1.5 degrees, as shown in Table 6.

Table 6. Total activities of using modern communication technology for extension farms

Seq.	Paragraph	Weighted mean	%	Weighted mean	%
1	Using mobile phones to communicate and deliver extension messages	1.46	47	1.1	38
2	Form groups of farmers on mobile	0.2	7		
3	Using mobile phones to spread social networking activities	1.9	62		
4	Exchanging information with the Extension Department and other centers and farms	1.9	62		
5	Use of agricultural weather stations data	0.46	15		

Table 6 concludes the poor use of modern technology to communicate with farmers, and this means missing an opportunity to help farmers and other working groups in agricultural activity to improve and develop their knowledge and information or to

organize farmer groups and involve them in decision-making.

2.3. Activities to encourage agricultural innovation: The results of the activities to encourage local agricultural innovation, which amounted to 4 paragraphs, showed a weighted

mean of 1.4 degrees and a 46-percentage weight, which is less than the hypothetical

mean for the scale of 1.5 degrees, as shown in Table 7.

Table 7. Distribution of the respondents according to the activities to encourage agricultural innovation

Seq.	Paragraph	Weighted mean	%	Weighted mean	%
1	The farm management searches for farmers' innovations	1	33	1.4	46
2	Encouraging farm management for farmers' innovations	1.8	60		
3	Bringing farmers' innovations to research bodies	1.5	50		
4	The farm management worked to spread the innovations of farmers	1.4	47		

It can be conclude from Table 7 that despite the importance of local innovation for farmers in increasing and improving production, but the of the extension farm was poor in the series of activities aimed at finding solutions to farmers' problems and interacting with stakeholders and was limited to encouraging farmers(12).

2.4. Monitoring and evaluation activities

The results of the monitoring and evaluation showed that there is no organization in the a of a specialized unit body or committees

for monitoring or evaluation. The 6 paragraphs of the monitoring of extension and training activities showed a weighted mean of 2.6 degrees and a percentage weight of 66 degrees, which is higher than the hypothetical mean of the scale of 2.5 degrees. The paragraph results of evaluating the extension and training activities that amounted to 4 paragraphs showed a weighted mean of 1.2 degrees and a percentage weight of 37 degrees, which is less than the hypothetical mean of the scale of 1.5 degrees, as shown in Table 8.

Table 8. Distribution of the respondents according to the activities and evaluation of extension farms

Seq.	Paragraph	Weighted mean	%	Weighted mean	%
1	Monitoring the extension and training activities	3	75	2.6	66
2	Monitoring on the farmers' implementation of the recommendations	2.7	68		
3	Monitoring on the farmers' application of correct practices	2.6	67		
4	Monitoring on the farmers' application to publish and adopt the technologies	2.6	67		
5	Monitoring of the farm management in diagnosing problems of the activities implementation	2.9	73		
6	Monitoring the environmental and economic changes in the farm work area	1.7	43		
7	Is there an evaluation of the extension and training activities?	2.16	72	1.2	37
8	The farmers participate in the farm activities evaluation	0.73	24		
9	Farmers' reactions and satisfaction with the activities are measured	1	33		
10	Informing farmers about the results of the activities evaluation	0.53	18		

It can be conclude from the data and Table 8, that the monitoring or evaluation process lacks organization, whether in the form of a committee or a specialized unit within the extension organization. It also conclude that there is an average benefit from the monitoring

and the absence of an objective evaluation of the various activities by the extension farm, which means that an important opportunity for the farm to improve these activities is lost.

3.Coordination and participation activities: The results of the interaction paragraphs with

farmers that amounted to 4 items showed a weighted mean of 2.55 degrees and a percentage weight of 64 degrees, which is higher than the hypothetical mean for the scale of 2.5 degrees. The results of the coordination paragraphs with relevant governmental and

non-governmental institutions that amounted to 2 paragraphs showed a weighted mean of 1.2 degrees and a percentage weight of 40 degrees, which is less than the hypothetical mean of the scale of 1.5 degrees, as shown in Table 9.

Table 9. Distribution of the researchers according to interaction and coordination activities

Seq.	Paragraph	Weighted mean	%	Weighted mean	%
1	Achieved personal contact with the farmers during the activities	2.7	68	2.55	64
2	Listens to the needs and problems of farmers and exchanges information	2.8	70		
3	Learn about their innovations related to their agricultural activities	2.7	69		
4	Encouraging farmers to form an association or group	2	50		
5	Were you a party in coordination with other institutions?	1.1	36	1.2	40
6	Conducted coordination with governmental or non-governmental departments	1.3	43		

It can be conclude from Table 9 that most of the extension farms achieved moderate interaction with farmers, listening to their problems and learning about their local innovations, but they failed to form farmer groups, Rural leadership development, and this is consistent with the study (4).It

also concludes that coordination was poor with governmental and non-governmental agricultural institutions to take advantage of their capabilities or potential and put them in the service of farmers and other groups working in agricultural activity. Further more, the results of the participation paragraphs with

governmental and non-governmental institutions in providing extension service of 2 paragraphs showed a weighted mean of 1.2 degrees and a percentage weight of 41 degrees, which was less than the hypothetical mean for the scale of 1.5 degrees. The results of the integration paragraphs with the related programs and projects in the service of farmers that amounted to 2 paragraphs showed a weighted mean of 2.4 degrees and a percentage weight of 61 degrees, which is less than the hypothetical mean of the scale of 2.5 degrees, as shown in Table 10.

Table 10. Distribution of respondents according to the participation and integration activities of extension farms

Seq.	Paragraph	Weighted mean	%	Weighted mean	%
1	Your participation with other institutions	1.3	43	1.2	41
4	Benefit was achieved from sharing	1.2	40		
3	Linkage and integration of activities provided by the farm to farmers	2.8	70	2.4	61
4	Association and integration of farm activities with activities of the Directorate of Agriculture	2.1	53		

It can be conclude from Table 10, despite the participation importance of official and semi-

official local organizations in providing extension service to farmers and other working

groups in agricultural activity, but they are still very weak and this did not contribute to achieving the farm objectives. The reason for this is due to the lack of invitation for participation or poor coordination with these organizations in providing extension services. It was also concluded that most of the extension activities of farms were moderately integrated and correlated, which is a positive indicator for the most important principles of agricultural extension(20), which means that there is no conflict or overlap in the farm extension plans. But it is weak in integration and correlation with the activities and programs of the Agricultural Division, the Extension Division, and other divisions in the Agriculture Directorate, this does not contribute to the fulfillment of extension activities.

CONCLUSION .

Despite more than a decade for the extension farms in Iraq, it did not reach most of the rural areas. weakness of the various extension farm activities inside and outside its borders, and in the activities of coordination and participation. They are carried out by extension employees who lack the necessary extension training to carry out these basic activities in providing extension service to farmers.

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