# The reality of Project grafting watermelon on squash that implemented it by the directorate of extension and training agricultural cooperation in some provinces of the middle of Iraq

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**Abstract**: The aim of research is to identify the reality of Project grafting water melon on squash that implemented it by the directorate of extension and training Agricultural cooperation in Some Provinces of the middle of Iraq, Organization, Planning, Implementing, Flow- up and Evaluation . and identify the extent of benefit water melon farmers from Project. To achieve research objective an evaluation map that included 42articlesd distributed on5 axes organization, planning, implementing, flow- up and evaluation. Data were collected from 80 farmer during 30- 3 unite 25- 4-2017 through questionnaire and interview. A scale has prepared of benefit water melon farmers from Project that included 18articlesd distributed on 4 axes Educational, Supplying, Product, Economical. The result showed that absence of organization for of Project grafting water melon on squash. And the number of training and extension activities executed by the directorate of extension and training agricultural cooperation for the years in all country and provinces of research for field the Project it was little, The result also showed that of benefit farmer from Project a small group, and the weakness of flow - up and evaluation of training and extension activities executed in the field Project. the author recommend to identified independent organization to the activating the follow-up and evaluation System of Project Initiation the achievement of the objectives achieved and the desired adopting the results of follow-up and evaluation sinputs for the decision makers related to the development of this project.

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# I. Introduction

Watermelon is a crop of Cucurbitaceous, one of the most important crops in the world, cultivated in areas with a relatively warm and long growth season (14). Watermelon is more World – class consumption importation as Food and Medical (12), It contains 93% water(15),In addition to protein, fat, carbohydrate, vitamin A and vitamin B6. It also contains some essential amino acids such as daltherionin, valen, methionine, and alucine. Alesin, histidine and arginine (8). It also contains some yeasts that convert the insoluble protein into dissolved peptide which makes it important for kidney patients (4). The productivity and productivity of the cultivated areas in the world and in the Arab world have increased, according to the statistics of the Food and Agriculture Organization of the United Nations in some European countries for 2012, including the United States of America and Spain 10 ,000-40, 000 ton /ha (7) . The production of the crop in some Arab countries was as follows: In Saudi Arabia 250, 000 ton /ha, Egypt 180,000 ton /ha, Algeria 120, 000 ton /ha, Pakistan 90,000 ton /ha, Morocco 80,000 ton /ha, Libya and Tunis 40,000 ton /ha , And the Sudan is 30, 000 ton /ha. Syria is the most productive producer of the crop among the Arab countries, produces 400,000-600,000 ton /ha annually(1). In Iraq, the crop is considered one of the important summer crops. It is ranked third after the cucumber and tomato the area in terms of area Cultivated and total production. In recent years, there has been a marked decline in productivity, as shown in table 1 (10).

Table 1. Iraq's productivity of the crop for the years 2010- 2015						
Year	Area cultivated	Production ton /ha				
2010	36.108	394193				
2011	398.024	340462				
2012	507.264	406288				
2013	593.844	406009				
2014	363.888	300309				
2015	187.644	126433				

Table 1. Iraq's productivity of the crop for the years 2010- 2015

The decrease in crop productivity is due to several reasons, including scarcity, Stalinizations Lack water of the salt soil and diminishing arable land due to desertification, as well as the spread of pathogens in Iraqi soils such as fusarium and fercillium(3). Watermelon weakness of the spread of pathogens they infest the roots in stage of produced fruits . The composition of fruits increases the size of economic loss (6). The Ministry of Agriculture -

Department of Extension and Training of Agricultural - Department of Horticultural Crops has launched a project to install pomegranate seeds in 2013 in order to eliminate the problems of yield cultivation in Iraq, foremost of which are the pathogenic factors affecting crop The increase in production and agricultural productivity. Recent studies have demonstrated the importance of the installation process by optimizing the use of irrigation water, reducing the use of chemical fertilizers and fungicides, and increasing the productivity of the yield crops(13). Therefore, this study was used to diagnose the reality of the project of installation Watermelon on Squash and to determine the level of utilization watermelon farmers of in Babylon Governorate from the project.

**Materials and methods of research:** This research comes within the descriptive approach in conducting the research, and selected the province of Babylon / Farm Mahnawiya area to conduct the research. The research community included all the farmers in the research province, which are (200) farmers, and withdrew a random sample proportionate by 40% of the research community by a size of 80 farms.

**Research tools:** A map was prepared for the study of the reality of the project of installation of pomegranate development in light of: literature and previous studies in the field of extension evaluation and the views of a group of experts in the field of agricultural extension, the map included 42 paragraphs divided into five axes (Organization, planning, implementation, follow-up and evaluation) as shown in Table2.

axes	areas	items			
Organization	project organization	The existence of the Organization for management installation			
		project Watermelon on the Squash			
		Levels of organization and administrative linkage			
		Participation of governmental and private institutions and			
		companies in the field of the project			
	The justification for the project	the existence of effective justification for the organization to make			
		of the project			
	Objectives of the organization	The existence of the objectives of the organization specific and			
	<b>J</b>	clear in the field of installation project Watermelon on Squash			
		Inclusive goals for behavioral aspects (knowledge, skills, attitudes)			
		The nature of the objectives (research, educational, processing,			
		service)			
		There is a harmony between the objectives of the organization and			
		the objectives of the participating parties in the field of the project			
	Tasks and duties of the	The existence of the tasks and duties of the organization specific			
	organization	and clear in the field of installation project Watermelon on Squash			
		The existence of specific and clear tasks and duties for the			
		employees of the project			
		The existence of specific tasks and duties of the parties involved in			
		the project			
	Mechanism of communication and				
	the coordination	communication and coordination between the project-based			
		organization and the relevant bodies			
Planning	project planning	The existence of an annual plan documented in the field of the			
Taming	project planning	project Watermelon on Squash			
	objectives Plan	existence of specific and clear objectives of the project Plan			
	objectives Plan Plan activities				
	Plan activities	the project Plan activities (research, extension, processing and			
-		,services)			
	preparation to preparing project	existence of Participation of the relevant parties the project plan			
	plan	existence of Participation of the water melon farmers in the			
		preparation the project plan			
	requirements of the Plan	existence of plan requirements material requirements for the			
		implementation of the activities of the project plan.			
		The existence of financial allocations to implement the activities of			
		the project plan			
	Planning place	implementation of the project plan the sites of plan the Place of			
	01	plan activities			
	Planning time	timing of implementation of project plan activities			
implementation	activities implementation	Implementing the project plan activities			
implementation	preparation to implementation	existence of Participation of the relevant parties of the project			
	preparation to implementation project plan	implementing			
	project plan	existence of Participation of the water melon farmers in the			
		preparation the project <i>implementing</i>			
	implementation place	Implementing the activities as limited place of the project plan			
	implementation time	Implementing the activities as limited time of the project plan			
	requirements of the	existence material requirements for the implementation of the			
	implementation	activities of the project plan			
		existence of financial allocations to implement the activities of the			
		project plan			

	Table (2) axes and	paragraphs of the	reality of the installation	n project Watermelon on Squash
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Follow- up	Follow- up organization	The existence of Organization( unit) Follow- up of the project			
		plan Activities			
	Follow- up Objectives	existence of specific Objectives of Follow- up			
	The party in charge of it	Inside, out side, particle			
	Mechanism of Follow- up	Weekly ,Monthly, Season			
	Mean and methods of Follow- up	Field visited Periodic reports ,Telephone calls,			
	The employers	existence Qualifying and training employers of Follow- up			
	Follow- up Results	The existence of Document Results of the Follow- up			
	Follow- up benefit	The existence of benefit from Results of the Follow- up			
Evaluation	Evaluation Organization	The existence of Organization(unit) evaluation of the project pla			
	_	Activities			
	Evaluation Objectives	The existence of specific Objectives of evaluation			
	The party in charge of it	Inside , out side, particle Preliminary ,Makeup ,Finally			
	Evaluation Types				
	Evaluation Results	The existence of Document Results of the evaluation			
	Evaluation benefit	The existence of benefit from Results of the evaluation			

# **Building Scale**

Eighteen items were identified on four axes (educational, processing, production, economical) to study the level of benefit Water melon Farmers from Project Grafting Watermelon on Squash they implemented by the Department of Extension and Agricultural Training - Department of Horticultural Crops, as shown in Table 3. (18-72) score on a four-track quadrant (large, medium, low, not benefited), and the following (1, 2, 3, and 4) respectively. , And promise this meter to light: 1. Literature and scientific studies in the field of agricultural extension. 2. The views of a group of experts in the field of agricultural extension and garden gardening (6) experts to indicate the degree of their approval on the axes and paragraphs proposed and the required amendments to exit the final version. In the light of the experts' opinions, the amendments were made in the formulation of the axes and paragraphs of the study of the reality of the project and therefore reached a cutting threshold of 95%.

 Table (3) axes and items of the prepared of benefit Water melon Farmers from Project Grafting Water melon on

 Squash

		Squash					
NO	areas	items					
1	educational	1. Add new knowledge of field the project Grafting watermelon on squash.					
		2. Add new Skills of field of the project.					
		3. Get convenience training of agriculture technical and mechanism.					
		4.expansion knowledge the experience to water melon farmers in field the vegetable agriculture.					
		5.Viewing to agriculture technical in field the watermelon agriculture.					
2	processing	1.provide inputs application the project grafting watermelon on squash .					
		2. provide the of agriculture technical and mechanism.					
		3. provide the Scientific Staff Specialized in field the vegetable agriculture general and					
		watermelon agriculture particular.					
3	production	1. input new agriculture active in family farmer.					
		2.Development watermelon agriculture in Iraq.					
		3. expansion agriculture areas from watermelon plant.					
		4. <i>product</i> new Varieties from watermelon plant that resistant to fungal diseases.					
		5. Raise the product and improve its quality.					
		6. Support young farmers in through of Create project small <i>product</i> .					
4	economical	1. Increase rural household income.					
		2. Increase revenues for Cost.					
		<i>3. provide work chance for</i> family people.					
		4. Avablaty to management Agriculture product project.					

The data were collected by means of the questionnaire from the research sample of 80 farmers on 30 / 3-25 / 4 / 2017 and done Pre- test on questionnaire on sample was(10)Farmer in Abu Ghraib in Baghdad Provinces in 11312017and scale questionnaire stability by Vaccronbach, The stability was 0.88% degree. And used to Analysis and treatment the data: Present, Arithmetic mean, stability done and Vaccronbach (11,2).

# II. Results Review and Discussion

# Objective 1: Diagnosis of the reality of the installation project Watermelon on Squash organization , planning, implementation, follow-up and evaluation

**1.Organization :** Results of the organization evaluation of the following

1. The existence of an organization concerned with the management of the project of installation of pomegranate improvement, which is represented by Department of Horticultural Crops,- Directorate of Extension and Agricultural Training - Ministry of Agriculture.

2. There is more than one level of organization responsible for the project :

**Central level:** Department of Horticultural Crops,- Directorate of Extension and Agricultural Training linked to the Ministry of Agriculture.

**Governorate level:** Training extension centers associated with the Agricultural Extension and Training Directorate. Level of jurisdiction or Province: Extension farms associated with administrative training centers. 3.The existence of government institutions and civil companies participated in the project, namely: Department of Research and Studies - of Horticulture Directorate - Ministry of Agriculture. ARD / Private Sector

4. There is a real justification for the organization of the project, as the project to install the upgrade watermelon on squash projects with high opportunities in:

1.Elimination of fungal diseases that affect the yield of the country, which significantly affects the production of the crop as a whole.

2. The introduction of new varieties in the fields of cultivation of sophistication. .

3. Raise production and improve its quality income

4.Increase rural household

#### 5. The cost of the project convenience with financial availability for rural family.

5. The existence of specific and clear objectives for the organization based on the project, which is as follows: Eliminate the of the problems of cultivation of sophistication in Iraq, especially the pathogenic causes affecting the crop, in particular the disease of vesarium and fercillium. Increase production and improve quality.

6. The existence of harmony between the objectives of the project-based organization and the objectives of the participating parties in the project to elimination of the problems of growing agriculture in Iraq, primarily the pathogenic causes affecting the crop, in particular the disease of vesarium and fercillium and increase production and improve quality.

7.The existence of specific and clear tasks and duties for the project based organization: Putting research plans, research, guidance and equipment, in the field of the project. Implement planned activities in pre-planned plans. Coordinate with the project participants to obtain financial and material support to implement the plans. Supervising the implementation of the activities planned in the plans through field visits. Document results obtained from project implementation

8. The existence of specific and clear tasks and duties for the employees of the project and at all levels, namely: Participation in the implementation of extension seminars. Lecture about the project (its objectives, justifications, stages of implementation ... etc.) Printing of official books Organizing a field day in which the farmer participates in the project to introduce the importance of the project. Delivery of dishes (saplings) to the cultivation plant in the provinces of the central region of the country. Conducting field visits to the farmer's fields during the implementation of the project.

9. The existence of specific tasks and clear to the parties participating in the project in various fields of research, guidance and equipment, which are as follows: Provide financial support to the organization responsible for the project. Providing places for lectures, workshops and field clarifications to raise the awareness of the project and its importance.

10. The existence of a specific and clear mechanism for communication and coordination between the organization responsible for the project at all levels and between the relevant authorities through: Official books Telephone calls Meetings during lectures and seminars Official visits We can conclude the following:

1. The Department of Extension of Agricultural Crops is one of the sections of the Department of Extension and Training of Agriculture to Ghraib, which is responsible for projects related vegetable crops in Abu general and the project to install the watermelon on squash in particular. This means that there is no formal organization for the project management and weakness continuing for future.

2.Lack of institutions and companies contributing to the adoption of the project, and the absence of the participation of the directorates of the agriculture of the governorates and their agricultural divisions, which negatively affects the scope of the project.

3. The justification for establishing the project stems from the needs and problems of the farmer in most of the governorates of the country, and this is a positive direction for the development and development of plant and animal plant technologies alike.

4. The content of the objectives of the organization and its levels are all focused on the productive side and neglect of the educational and technical aspect and modern mechanization in the field of the project. In spite

5.In spit of the diversity of tasks and duties assigned to the workers in the project, they take the educational nature and negligence of the applied or training side.

6.The tasks and duties of the concerned parties are of a limited nature in the requirements and specialized cadres and the absence of scientific / academic support in the field of the project. \_in spite 7.of the existence of more than one mechanism of communication and coordination, it follows with very limited parties in the field of the project.

2.Planning Results of the Planning evaluation of the fallowing:

1. The existence of an annual plan documented by the Department of Horticultural Crops,- Directorate of Extension and Agricultural Training as follows: . Activities planned for implementation in the project field . Schedule for implementation of plan activities . Places of implementation of plan activities Financial allocations and material requirements required to implement the plan's activities. Use. . The same project plan for more than a year 2

3. The existence of specific and clear objectives of the project plan is to define and convince the farmers of the promotion by adopting the project of installing the watermelon on squash i through seminars, lectures, extension workshops and field clarifications in order to raise production and improve its quality.

4.Provide financial allocations for the implementation of the activities of the project plan, namely ; Research activities: Technology testing on a limited scale to ensure its success .

Extension activities: implementation, seminars, lectures, extension workshops and field clarifications. processing activities: Provide Water melon dishes (Saplings) for project.

5.distributed activities extension in project plan :Central extension seminars, field clarifications, extension workshops and Television program ,one: Yearly.

6. Activities extension not including : Training periodic ,Local seminars, Extension bulletins and folders.

7. processing activities in project plan including: Provide water melon dishes (Saplings) 10-20 dishes: farm in average 50-60 Saplings : dish ,in addition to limited of Herbicides and fertilizers. We can conclude the following: 1. The preparation of the project for the grafting of the watermelon on square is limited to the Department of Horticultural Crops,- Directorate of Extension and Agricultural Training, which means the absence of the active participation of the relevant parties and water melon farmers in the preparation of the plan, making the objectives of the project plan far from objectivity.

2. The adoption of one plan for the project and over more than a year, means the absence of the most important principle in planning projects and programs is the principle of flexibility.

3. The content of the objectives of the project plan focuses on the cognitive aspect of the project rather than the applied and emotional aspects.

4. Limited financial allocations and requirements requisite to implement the activities of the project plan, which is reflected in the type and number of activities implemented within the project plan

5. Lack of indicative activities planned in the project plan.

6. Focusing the extension activities planned within the project plan on the educational side and neglecting the application / training side, indicating the absence of integration in the educational process in the project field.

7. Lack of the number of seedlings distributed to the cultivation of improvement in the provinces of the central region in general and the search in particular, which negatively affects the quantities produced from the crop compared to the cultivated areas in the fields of farmers, estimated at 10-15 acres.

3. Implementation Results of the implementation evaluation of the fallowing:

1. The activities carried out within the framework of the project of installation of watermelon on square are research, guidance and processing activities

2. The activities of the project plan were carried out within the designated locations of the project: Research Activities in the Department of Horticulture - Department of Research and Studies - Ministry of Agriculture. Extension activities were carried out as planned for each activity in: Extension Centers and Farms of the Agricultural Extension and Training Department, Directorate of Horticulture - Department of Research and Studies. processing activities were carried out by the company ARD.

3. The activities of the project plan were carried out in accordance with the timetable set for it by the following agencies: processing activities within the cultivation period of the upgrade from the half of January - the half of March. Extension activities within the period of planted seedlings.

4. The requirements for implementing the project plan activities were provided by agencies: Research activities: seeds, fertilizers, corks, seedlings incubators, working hands. Extension activities: Halls, Projectors, Hospitality. processing activities: dishes (Saplings), Fertilizers and Herbicides.

5. limit of financial allocation for implementing project plans with all fields.

6. participation relevant parties of implementing processing, extension and research activities ,all as limit role in the field of project.

7. participation Water melon farmers of implementing extension activities in the field of project as limit places and times.

# We can conclude the following:

1. Absence extension activities in level Agriculture divisions of the project.

2. extension activities conducted through Agriculture Saplings and Absence before and after implementing the project particular in field of fertilizing, harvesting, controlling, covering, product marketing.

3. extension activities conducted in project plan No(1) / activities, This not enough to delivery the knowledge ,s kill and technical requisite of success Agriculture Saplings and achieve objects of the project .

4. processing Activities has concludes processed Water melon farmers dishes (Saplings) and absence new Irrigation Technical, seedlings incubators and Experience Staff.

5. The Participating relevant out thirties and water melon farmers implementing of plan Activities its un objectivity.

#### 4. Follow - up

Results of the Follow - up evaluation of the fallowing:

1. Absence formal organization( unit) of Follow – up extension activities conducted of Project grafting water melon on squash.

2. The Object of Follow – up processes following agriculture water melon dishes (Saplings) in farmers farms and limited problems Follow – up processes.

3. Follow – up conducted by staff in extension farmsteads.

4. The existence of Follow - up mechanism conclude : Seasons visited field , official reports .

#### We can conclude the following:

1. Absence formal organization(unit) of Follow – up and qualifying and training staff of Follow – up tasks, this mean absence essentially means of find errors and weakness of process planning , implementing of plan activities in Project Grafting water melon on squash, and find convenience results for it (9).

2. Absence outing Participation of Follow – up , this mean absence the objectivity of total results of application the Project.

3. Absence of Follow – up conducted extension activities, this bake to little numbers and absence training activities.

4.uising Seasons mechanism (End of implementing the Project), this mean absence the integration of Follow – up process.

5. In spite of existence clear results of Follow - up process , but its not formal document, this mean no benefit from Follow - up process of make design of development the Project for future .

#### 5. Evaluation

Results of the evaluation evaluation of the fallowing: Absence of evaluation conducted activities in plan Project grafting water melon on squash particular extension activities, this mean absence element essentially in management programs and Projects like Project grafting water melon on squash, The evaluation means essentially of diagnosis points weakness and powers in programs and Projects , In addition to assist managements programs and Projects to make perfect design of development the Project and continuity (5).

#### Objective 2: the extent of benefit Water melon Farmers from Project Grafting Water melon on Squash

The research results showed that Maximum degree of benefit water melon farmers from Project was 69 and Minimum degree 18 on with average(18-72) score on a quadrilateral scale of four terms (large, medium, low, not advantageous) and the following (1, 2, 3, and 4) respectively as shown in Table 4.

**Table 4** axes and paragraphs measuring the level of benefit of the farmer of the project of the installation of improvement water melon on squash

Benefit	Axes							
Categories	Educational		Supplying		Product		Economical	
	No	%	No	%	No	%	No	%
High benefit 30-18	15	18.7	8	10	22	27.5	20	25
Medium benefit 43-31	25	31.2	20	25	18	22.5	25	31.2
benefit low 56-44	30	37.5	41	51.5	25	31.2	28	35
No advantageous 69-57	10	12.5	11	13.7	15	18.7	7	8.7
Total	80	100	80	100	80	100	80	100

The following from Table 4 :the Maximum Present benefit water melon farmers from Project was low, to several reasons including Lack of institutions and companies contributing to the adoption of Project the material requirements ,In addition to the weakness of follow - up and evaluation of training and extension activities

executed in the field Project management, and theirs no identify the problems implement the project and find the convenience Solution.

We can conclude the following from all research : The research concluded that there is no formal organization for the management of the Pumping Pump Installation Project, and Lack of institutions and companies contributing to the adoption of Project. The number of extension activities carried out in the field of the project is very few years. It has a theoretical content rather than a practical one, and the absence of a documented training program for the staff in the planning, implementation, follow-up and evaluation of the project. The follow-up process is limited to the extension activities in the project field. as well as the weakness of the follow-up process of the guidance activities implemented in the field of the project and the absence of the process of evaluation of the project for all phases, And that nearly half of the cultivation plants applied to the project came to a degree of benefit from the project a few, despite the importance of the project in the elimination of the problems of cultivation of the crop and the most important diseases that affect the preferred increase production and productivity. Therefore, the researcher recommits the importance of establishing a special organization for the project to ensure its continuity in the long run and achieve the desired objectives. It also activates the system of follow-up and evaluation of the activities carried out and the achievement of the objectives achieved and the desired results and adopting the results of follow-up and evaluation as inputs for the decision makers related to the development of this project. The agricultural sector in the country and the reduction of the import of plant food products, including the crop of development and achieving food security in our Iraqi society.

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