

## The role of agricultural extension in the production and marketing of the olive crop in Ismailia Governorate

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### ABSTRACT

The research is aimed at Determining the degree of the role of agricultural extension in the production and marketing of the olive crop , by determining the degree of its activities in the field of olive production , as well as determining the degree of its activities in the field of marketing the olive crop, in addition to determining the degree to which it assists farmers in solving the problems they face in obtaining knowledge and information The executive branch and their proposals to solve these problems , then determine the degree to which it assists the farmers in solving the production and marketing problems facing olive growers . This research was conducted in Ismailia, due to the expansion of the governorate's area, the largest (3) centers were selected in terms of the area planted with olives, and the largest association was chosen in each center, which is an Ismailia for reconstruction. The number of farmers was 300, 108 farms, or 37%, were surveyed in East Lakes, and the number of farmers was 190, 108 farms were surveyed, or 23,5percent, and the tenth of Ramadan was 320, and 115 farms, or 39.5 % , were surveyed. The total sample was 291 respondents, and the farmers were selected in a systematic random manner, and the data were collected during the months of November and December of the year 2019 through a personal interview with the respondents and used in computer data analysis by the statistical program. (SPSS, through the weighted average, standard score and Pearson's simple correlation coefficient (t), as the results were presented using frequencies, percentages and percentage of the mean, in the tabular form.

**Keywords:** *The role, agricultural extension , the production, marketing, the olive crop, productive activities, Marketing activities, Productive problems, Marketing problems, farmers*

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### INTRODUCTION

**The most important results of the search are summarized as follows:**

1- Most of the respondents are less than 60 years of (77.4%), while (22.6%) fall in the age group of 60 years and over, and that (50%) of them are illiterate and do not read or write, and that almost three-quarters of the respondents (72.5%) have agricultural holdings. less than 6 feddans as it was also found that most of respondent, with (82.1%) of farmers, have large olive trees (more than 36 years),

And that (52.8 %) of the surveyed farmers have a low frequency to the agricultural service centers, while (89%) of the respondents fall into the category of people with low level of information sources.

2- It was show that (72.6%) respondents the agricultural extension role was low in the production and marketing of the crop of olive.

Also slightly more than two-thirds of the respondents (69%) level carried out the activities stated that the agricultural extension of its extension role in providing farmers with knowledge, production and marketing information for the olive crop was low.

3- The results showed rise significantly in the men scores of existence of the problems facing farmers harvest olives in the access to knowledge and executive information in the production and marketing of the olives. And the most important problems was the scarcity of agricultural counselor visits to the fields and houses regarding the production and marketing of Olive and insufficient guidance fields of date palm.

4- The results also showed a significant increase in the average degrees of productivity problems, where the problem of lack of trained labor ranked first with a rate of 92%, while the problem of lack of pesticides ranked second with a rate of 91.5%, and the problem of lack of water ranked third with a rate of 91%, the problem of transporting crop by 89.5%, then the problem of weed infestation by 89.25% .As for marketing problems, the problem of merchant exploitation ranked first with a rate of 94.25%, while the problem of high collection costs ranked second by 91%, and the problem of high transportation costs ranked third by 90.25%.

#### **Introduction and research problem:**

Agriculture is the main source for individuals to obtain their food and clothing, and it is one of the most important industries in Egypt and its foundation. Due to the continuous increase in population numbers, the urgent need has emerged to increase agricultural production in order to meet the increasing needs of food and clothing. Agriculture is also one of the most economic sectors that absorb employment, as the number of workers in the agricultural sector in 2012 reached nearly 6.4 million workers, representing 27.1% of the total workers in Egypt in 2012, and this sector contributes about 13.4% of the total GDP [1]. [http://www.capmas.gov.eg/Pages/Publications.aspx?page\\_id=5104](http://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104)

The agricultural extension is one of the main devices responsible for increasing agricultural production, developing the rural family and improving their standard of living, through making educational changes in the knowledge, skills and attitudes of farmers and their families by communicating the results of agricultural research to them [2]. The agricultural extension seeks to advance agricultural production and improve rural life by urging farmers and helping them to help themselves and working with them in order to raise their standard of living to achieve an increase in agricultural production, both plant and animal, raising agricultural productivity and finding the most appropriate solutions to agricultural problems facing agriculture and farmers alike [3].

Agricultural extension has a clear philosophy as it helps people to help themselves change their thinking, emotional and executive behavior in facing their life problems in order to bring about the required changes economically and socially as a result of this behavioral change. Behavioral change [4], the agricultural extension tracks the results of scientific ,research and works to simplify them in an easy way that can be understood by the farmers, and then transfers them to them where the practical application of these ideas and practices developed in their fields depends on convincing them of their importance, which motivates them to adopt and implement the new ideas and agricultural practices developed with the aim of Behind this is the advancement of the level of agricultural production and the development of rural income, by raising the efficiency. and productive capacity of farms [5].

Fruit crops take a large part of the agricultural extension's attention and extension services, as fruit crops are among the most rapid progress in the ways and means of their production due to their economic and nutritional importance. It is also a basic source of vitamins and minerals necessary for the vital reactions that take place within the cells of the human body, and the fruit tree To Him is the Spirit. [6].

The olive crop is one of the most important fruit crops, and olives are one of the most important agricultural crops that are suitable for cultivation in newly reclaimed lands, as this is due to the superiority of the growth of olive trees over most other fruit trees, especially under salinity conditions and variations in soil types. Olives are grown in Egypt in most governorates, often singly or with other crops [7]. that the has been mentioned cultivated area of olives increased from five thousand at the end of the seventies to more than one hundred thousand acres the end of the nineties, and this is due to the superiority of the growth of the olive tree in the new reclamation areas than the rest of other fruit crops, especially under conditions of drought and salinity and the variation of types the soil. In view of the existence of new cultivation areas suitable only for the cultivation of olive trees, because of their great tolerance of thirst, salinity and alkalinity, as well as their adaptation to the nature of the desert environment, and the annual increase is expected to continue at a rate of no less than five thousand acres annually.

According to the statistics of the Ministry of Agriculture, the area of olives in the Arab Republic of Egypt is 237,454 acres (224,056 acres outside the valley, 13,398 acres inside the valley), the fruitful area is 144,850 acres, and the average production per acre 3.9 ton, the total production 565669 tons, mostly used as table olives, and about 70,000 tons of fruits are used in extracting about 10 thousand tons of oil.

Olives have many economic and nutritional benefits, as the fruits are used in extracting the oil or as table fruits, as they are used in the form of green olives or pickled black olives. It was explained [8] that olive fruits are of high nutritional value, as each (100) grams of Green fruits meat contains (144 calories, 13.5 grams of fat, 4 grams of carbohydrates, 5.8 grams of water, 1.5 grams of protein, 1.2 grams of fiber in addition to 420 international units of vitamin A, and some minerals such as( "phosphorous - calcium - iron").

The fruits of olives have a high nutritional value, as they are rich in carbohydrates, protein, vitamins and mineral salts, in addition to their high content of oil, which is the fastest digesting oil and is rich in vitamins, mineral salts and monounsaturated fatty acids. Bad cholesterol in the blood, lowering blood pressure, activating the liver and treating digestive diseases, especially ulcers. It is also prescribed for the treatment of many skin diseases. This is in addition to the use of dregs resulting from pressing olives as fodder for livestock [9].

Agricultural extension is considered the link between research and farmers, which transmits the farmers' problems to the research authorities, and here technology becomes the result of scientific research in solving the existing problems of farmers, while farmers are the recipients and users of technology [4].

Hence, agricultural extension has a vital role in agricultural development and overcoming its problems, as it transmits problems to scientific research centers and brings solutions and recommendations to application sites, trying to convince its extension audience, and change their knowledge, skills and attitudes [10].

Role is only SAC and the essential agricultural extension is to help from through educational efforts the process, which has a special character different from formal education not only in the quality of the learners and target groups in the teaching, Quality of the learners and target groups in the and learning process in order to apply the knowledge obtained in every day to solve the problems of farmers, as it Effective indicative education is the remainder of effective educational programs that are characterized by changing the behavior of the target groups, and this change may take many forms, including the change in knowledge, attitudes, and skills . Therefore, extension educational services must be based on the results of research and scientific recommendations. In this way, there are similar and overlapping relationships between extension education and scientific research, and it is the body that develops, develops and adapts technology [11].

The role of agricultural extension does not stop at finding solutions to agricultural productivity problems. Rather, extension services must extend at all stages of agricultural production before and after harvest by providing the counselors with knowledge and experience and providing them with skills related to methods of disease resistance, harvest dates, signs of maturity, sorting, and optimal storage methods to reduce waste [12].

The agricultural sector in Egypt faces great problems and challenges, the most serious of which is the spread of diseases in many agricultural crops. Agricultural crops are infected with many diseases caused by microorganisms, which affects their productivity, and consequently the amount of them available, which has a direct impact on human food and obliges governments to bear a lot of financial burdens to provide these food products. [13].

See [14] that the rol of agricultural extension is based on determining the level of farmers knowledge or their ability agricultural practices with persuading to implementation of them Pmaajb to follow steps to implement those expressive practices for their needs than it follows that guidance is effective and acceptable to farmers which is based It should , study when measuring the role of agricultural extension in the dissemination and application of technical recommendations related to the production and marketing of the olive crop .The age of the role : from a functional point of view, it is everything that is expected in a specific job or position [4].

**While he knew Khader:** Ali that he expected behavior of aperson as aresult of his job within acertain of particular group [15]. Ahmed believes that the role is the sum of actions and duties that that the role is that society expects from its organizations and individuals who occupy a social position in certain situations, and roles are of two types: the first is an ideal role: which is what society expects from an individual who occupies a certain position in a specific situation. And the second is a realistic role whichis what society expects from an individual who the individual actually does and whenever he is The individual is realistically close to his ideal role, which helped strengthen the social entity as a whole [16]. In light of the foregoing of the definitions in the concepts of particular role can derive a concept of the role of the extension as a set of expected activities be carriedd out by the guiding device to guide farmers towards E. Happenings changes behavioral in their knowledge and skills they work on e mask are the implementation of agricultural practices and so as to solve the problems Productivity and marketing, which affect their performance of agricultural operations of agricultural crops, in order to raise the efficiency of agricultural productivity for farmers and improve their standard of living. It highlights the role of agricultural extension by playing an effective role in raising agricultural productivity and marketing efficiency by making behavioral changes in knowledge, skills and trends by following the methods of modern agriculture and marketing agricultural crops, as well as linking science with real problems of agricultural production by transferring them to research centers to study and find solutions her operation.

#### **Research problem:-**

The olive crop is considered one of the crops that generates a distinguished economic return, whether it is marketed locally or exported. Ismailia Governorate is considered one of the largest governorates and regions of the Arab Republic

of Egypt in terms of the area planted with olives. This area has reached 19691 feddan in the this area represents 8% of the total area of olives at the level of the) with productivity 58494 ton. (4.15 feddan Republic of (237454) This average is considered low compared to the average productivity in the governorates and other areas that grow olives, such as Beni Suef (7 tons/f), Nubaria (7.33 tons/f), and Menoufia (6.4ton/f) and Sohag (5.415ton/f), Bulletin of Agricultural Economics, 2014.

As the agricultural extension in this governorate are responsible for entrusted with the work to bring about behavioral changes desirable in the knowledge, skills and attitudes farmers in the production and marketing of this crop aspects, it region to promote the production and what the trying to identify to conduct research that is was necessary agricultural extension farm in the field of production and marketing of the olive crop in Ismailia Governorate,, the the role of as it is responsible for the change in the region, to determine the nature of this role and the degree to which it is performed to achieve development goals.

Therefore, this research aims to try to answer the following research questions:

- What is the degree to which agricultural extension activities are carried out in the field of olive production and marketing.
- What is the degree to which agricultural extension help farmers
- obtaining knowledge and executive information and their proposals to solve these problems.
- To what degree does the agricultural extension help farmers in solving the production and marketing problems facing olive growers.

#### **Objectives:-**

- 1- Determining the degree to which agricultural extension activities are carried out in the field of olive production and marketing.
- 2- Determining the degree to which agricultural extension assists farmers in solving the problems they face in obtaining knowledge and executive information and their proposals to solve these problems.
- 3- Determining the degree to which agricultural extension assists farmers in solving production and marketing problems facing olive growers.
- 4- Determining the degree of the role of agricultural extension in the production and marketing of the olive crop.
- 5- Determining the relationship between the role of agricultural extension in the production and marketing of the olive crop and the studied independent variables.

#### **Research hypotheses:-**

Correlation between age found - level education j - cultivated area - experience in agriculture - membership in rural organizations- - the frequency of agricultural services organizations- - sources of information farmers respondents - . Agricultural - Direction – towards extension of agricultural extension in the production Marketing in and the role of the olive crop.

**Research method:- search area:** This research was conducted in Ismailia governorate, which is the province of the largest provinces Republic of Egypt in terms of area planted with olive trees by, reaching the area planted with olive trees by 969 feddan in 2019, representing 29% of the olive area in Wagh –Bahare measuring 6722 feddan ,and represents 8% of the total area of olives at the level of the Arab Republic of Egypt [17].

**Comprehensive search and sample:-** The research sample was selected based on the area of olives planted and the number of growers in it. The research sample was chosen from the total number of agricultural extension workers in the governorate on the basis of the “Craig and Morgan “equation [18].

$$\text{Are: } s = \frac{X^2}{PN} \div d^2 (N) + \frac{X^2}{P} (1-p) \quad (p-p-607-610).$$

Applying the previous equation on a comprehensive olive growers with the Governor of Ismailia's 1259, reached a sample size of search 291 Researched.

In view of the wide area of the governorate, the largest (3) centers were selected in terms of the area planted with olives, and the largest association was chosen in each center, which is Ismailia for reconstruction, and the number of farmers with it was 300, and the number of 108 farms with a percentage of 37% was surveyed , and East Lakes and the number of farmers were 190, and a survey was conducted The number of 108 farms, or 23.5% , and the tenth of Ramadan, 320, and the number of 115 farms, or 39.5% , were surveyed.

**Table No 1:** The area and number of olive growers in the selected associations in Ismailia.

Source: Ismailia Directorate of Agriculture, unpublished data, 2020.

NO	Centers	associations	Area	The number of farmers in the associations	The number of farmers in the selected associations	The number of growers in the sample	%
1	Abu Suwayr	El Manaifa	4587	119			
		El salam	2414	180			
		Ismailia for construction	1507	300	300	108	37
2	east arch	east lakes	2000	190	190	68	23,5
		El takadm	1300	150			
3	Ismailia	Tenth of Ramadan	1900	320	320	115	39,5
The total area and number of farmers in the occupied societies			8487	1259	810	291	100

#### Data collection:

To achieve the objectives of the research, a questionnaire was designed that includes a set of questions related to the variables of the study. Its connection with the general framework of the study problem and its objectives and the simplicity of its method were taken into account in accordance with the circumstances and conditions of the respondents.

A preliminary test has been carried out Form questionnaire on a sample of 20 farmers from elsalam Association, so make sure the researcher that the questions and phrases are clear and easily understood by questions and phrases are clear and easily understood by the respondents, and questions achieve the objectives of the research, data were collected during the months of November and December, in 2020 against in a personal with respondents using the Form questionnaire aforementioned.

#### Quantitative data processing:

After completing the data collection, the researcher unpacked and processed some of them quantitatively by giving them value scores according to the scale used with each variable, as follows.

#### First :- for personal variables:

**1- Age:** It expresses the age of the respondent, rounded to the nearest year at the time of data collection. The upper limit among the respondents was 77 years, and the minimum was 30 years, so the range was 47 years, divided into three categories, less than 46 years, and (46 - Less than 62 years old ) , and 62 years over).

**2- Educational level:** It expresses the number of years of formal education for those who read and write in addition to the category of secretary. The educational level was distributed according to the number of years of regular education obtained by the respondent into six categories: illiterate (zero years), read and write (5) years, basic education (9) years), middle education (12) years, university education (16) years, post-university education (20) years.

**3- The area cultivated with olives:** It is the area where the respondents are planting olives, and the respondents were divided according to the variable that is closest to the acre into the following categories: (less than 3 feddan), (less than 6 feddan, and (more than 6 feddan).

**4- Experience in cultivation:** by asking the respondents of olive growers about the number of years of cultivation of the crop, and its cultivation continuously or intermittently, and whether some farmers resort to it by asking him about information in the cultivation of the olive crop. And that is through a continuous, discontinuous scale given (2, 1) respectively, and people resort to it. by always, sometimes, rarely, nor given (1-2-3-4) respectively.

The previous three items were grouped and divided into the following categories: Low experience (less than (18), average experience (18) - less than (36), and great experience (36) or more.

**5- Membership of rural organizations:** by asking the respondents of olive growers about their level of membership through a scale that consists of four categories : non-member, ordinary member, committee member, and board member in the following organizations : the agricultural cooperative, the rural club, and the association The development of the local community, and the local village council, and values were given to the categories of the scale as follows: ( non-member (zero), ordinary member (1), committee member (2), and board member (3 three categories according to the

actual range as follows low in membership less than (2), medium in membership (2) less than 4), and high in membership (4) or more.

The average level of membership for each of the rural organizations is not found. The number of respondents has been multiplied, and in each category by its numerical value, the result is collected and divided by the total number of respondents, and the organizations are arranged on the basis of the average.

**6- Frequency of agricultural services centers:** by asking the respondents of olive growers about the frequency of their visits through a scale consisting of (always - sometimes - rarely – not), in the following organizations: the agricultural cooperative association, extension centers, agricultural units, and the extension department The agricultural departments of the agricultural departments, the Association for the Production and Marketing of Vegetables and Fruits, the Village Bank, and the Agricultural Credit Bank , and grades were given for the scale categories as follows: No (1) (2), sometimes (3), and always (4)The maximum frequency of the respondents is 25 degrees, the minimum is 9 degrees, and the range is (16) degrees. It was divided into four categories: not hesitant less than (13) rarely, (13)-, less than (17) sometimes, (17) less than (21) and Always (21 (or more), and in order to find the average frequency for each service organization, the number of respondents in each category was multiplied by its value degree, the result was collected and divided by the number of respondents for each crop.

**7- Attitudes of farmers towards agricultural extension:** by asking The respondents (34 phrases ) answers each of them through a scale consisting of three categories agree (3degree) no different (2degrees), and (1degree), for positive statements ,and vice versa for negative statements, and it reached the upper limit (105 degree), the lower limit (34 degree), and the range (71 degrees) and it is divided into three categories as follows: anegative trend (less than58), and a neutral trend (58 less than 83), and a positive trend (83 and more).

#### **Second:- the dependent variable:**

The role of agricultural extension in the production and marketing of the olive crop The role of agricultural extension was measured on the basis of the difference between the expected role of agricultural extension and the actual role played by agricultural extension.

#### **The expected role of agricultural extension:**

20 activities) related to olive production and marketing operations have been identified, in addition to assisting agricultural extension in the problems facing olive growers in obtaining knowledge and operational information representing (14 problems), and assisting agricultural extension in production problems: (14 problems) productivity, and marketing problems (8 problems) marketing, an expression of the expected role of agricultural extension.

**-To calculate the total score expressing the (actual) role of agricultural extension: the olive growers were asked about the following variables:**

#### **1-The degree to which agricultural extension activities provide Farmers with knowledge and executive productive and marketing information for the olive crop.**

This variable was measured by asking the olive growers of the respondents about the agricultural extension carrying out a set of activities (20 activities) that express its extension role towards this crop, and respondents were given two degree for each An activity that he did with the farmers, and one score in the event of not doing the activity These scores were collected for each respondent to express the degree of his activities in providing the farmers with knowledge and executive productive and marketing information for the olive crop. The actual upper limit according to this scale reached 40 degrees, The lowest is 20 degrees, with a range of 20, and it has been divided into three levels low (less than 27 degrees), medium (27 - less than 34 degrees), and high (34 degrees and more).

#### **2- Identify problems facing olive growers in obtaining knowledge and information of the Executive.**

**1- A-** Problems were identified through (14 phrases) representing (14 problems) in obtaining knowledge and information that he responds to using a scale consisting of: No (1), rarely (2), sometimes (3), always (4). An average was calculated for each problem separately by multiplying the number of respondents by the value scores given to them, summing them and dividing the result by the group of respondents, arranged according to the average percentage.

**3-Solution proposals:** by repeating the proposal to solve the problem, and the percentage of each proposal arranged based on this basis.

#### **4-Determining the problems facing olive growers during the production and marketing of the olive crop:**

##### **1-Productivity problems:**

The problems were identified through (14 phrases) representing (14 problems) productivity.

## 2- Marketing problems:

Through (8 phrases) representing (8) marketing problems that he responds to through a scale consisting of: No (1), rarely (2), sometimes (3), always (4), an average was calculated for each problem on Limit it by multiplying the number of respondents by the value scores given to them, summing them, and dividing the result over the group of respondents, arranged according to the average percentage.

The overall score obtained as a result of this combination reflects the degree to which the agricultural extension role is played in this field after being measured.

### The role of agricultural extension In the production and marketing of the olive crop:

it is the degree to which the agricultural extension carries out activities, i.e. its extension role in providing the farmers with knowledge and information about the production and marketing of the olive crop + the degree to which the agricultural extension helps in solving the problems facing olive growers in obtaining knowledge and information + the degree of Agricultural guidance by helping to solve the problems facing farmers during the production and marketing of the olive crop.

These have been converted to raw grades drawer data standard to reflect the overall degree of the role of agricultural extension through the following equation:

**The raw score of the respondents- the arithmetic mean**

$$\text{Total score} = \frac{\text{Standard deviation}}$$

**Statistical analysis:** To analyze the data of this research, the tabular display was used with frequencies, percentages, arithmetic mean, standard degree, and simple correlation coefficient. The computer was used through a program (SPSS). In analyzing the data of this research.

### Research results:-

#### First Description of the research sample:

**1-Age:** The results showed that 23.7% of the farmers surveyed fall into the category of young adults, while 57.4% of the farmers surveyed fall into the middle-aged category, while 18.9% of the farmers surveyed fall into the elderly category, and from the above it is clear that more than Half of the respondents (56.75%) of the total sample are middle-aged, which indicates the increased maturity of the respondents.

**2- The degree of education of the respondent:** the received results showed that 24.05 percent of the farmers surveyed were illiterate, while 16.83% of them could read and write, while 9.64% of them had basic education, 35.05 percent of them had intermediate education, and 13.40% of them They hold university qualifications, and 1.03% of them have post-university education. These results show a high percentage of the educated among the respondents, which indicates an increase in the awareness of the respondents' farmers, as the percentage of illiterate people in the sample did not exceed a quarter of the respondents.

**3-The cultivated area:** and the results indicate that 72.5% of respondents farmers fall in the small area category, while 20.3% of them with medium agricultural area, while 7.2% of respondents, farmers have large areas, and thus it is clear that more than two thirds of farmers The respondents (70.75%) grow olives in small areas less than 3 feddans.

**4- the Agricultural experience:** results showed that 27.1% of the farmers surveyed fall into the category of small experience, while 60.5% of them had medium agricultural experience, while 12.4% of the farmers surveyed have great experience, and it is clear from this that more than half of the respondents (56.75%) are of average experience, which makes them more in need of agricultural extension.

**5- The degree of membership in social organizations:** results showed that 92.1% of the farmers surveyed had low organic levels, while 6.2% of them had medium organic levels, while 1.7% of them had high organic levels, and it was clear from this that the majority of the farmers surveyed (87.81%) fall into the category of low membership, which requires more agricultural extension to reach farmers in their fields and homes.

**Table No 2:** Distribution of the respondents according to their studied characteristics.

Personal characteristics	the number	%
<b>1-Age</b>		
Juniors (less than 46 years old)	69	23.7
Average age (46 to less than 62 years old)	167	57.4

Elderly people (62 and over)	55	18.9
<b>Total</b>	291	100
<b>: -Number of years of education- _2</b>		
-Illiterate	70	24.05
-Reads and writes	49	16.83
-Basic education	28	9.64
-Intermediate education	102	35.05
-University education	39	13.40
-Post-graduate education	3	1.03
<b>Total</b>	291	100
<b>3-Cultivated area :</b>		
Less than 3 fedan	211	72.5
From 3 to less than 6 acres	59	20.3
-6acres or more	21	7.2
<b>Total</b>	291	100
<b>4-Experience:</b>		
Inexperienced (below 18 degrees)	79	27.1
Medium (18 less than 36 degrees)	176	60.5
Senior Experience (36 degrees or more)	36	12.4
<b>Total</b>	291	100
<b>5-Degree of Membership:</b>		
Low Membership (less than 2)	268	92.1
Medium (2- less than 4)	15th	2.2
High Membership (4 or more)	5	1.7
<b>Total</b>	291	100

**6- Frequency of agricultural service centers:** The results indicate that 1.03% of the farmers surveyed do not frequent the agricultural service centers, and 29.55% of them rarely visited the agricultural service centers, while 54.64% of them sometimes frequented the agricultural service centers, while 14.78 % of them are always hesitant , and it is clear from this that nearly half of the respondents (45.5%) sometimes visit the agricultural service centers, which requires the agricultural extension to make more efforts to help deliver agricultural services to olive growers.

**7- Degree of Attitude towards Agricultural Extension:** The results indicate that 33.3% of the farmers surveyed had negative attitudes towards agricultural extension, and 48.8% of them had neutral attitudes, while 17.9% of them had positive attitudes.

**Follow Table No 2:** The distribution of the respondents according to their studied characteristics.

<b>Personal characteristics</b>	<b>the number</b>	<b>%</b>
<b>6- The degree of frequency on the organizations:</b>		
Do not hesitate to (less than 13 degree).		
Rarely (13-below 17 degrees).	3	1.03
Sometimes (17- less than 21 degrees).	86	29.55
Always (21 degrees or more).	159	54.46
	43	14.78
<b>Total</b>	291	100
<b>7 -Direction towards guidance</b>		
Negative trend (below 57 degrees).	97	33.3
Neutral trend (57 - less than 80).	142	48.8
Positive trend (80 degrees or more).	52	17.9
<b>Total</b>	291	100

**From the previous presentation describing the respondents according to the personal, economic and social variables, the following can be drawn:**

- 1- More than half of the respondents (56.75%) are middle-aged.
- 2- The high percentage of literate among the respondents, as the percentage of the secretary is less than a quarter of the respondents (24.5%).
- 3- More than two thirds of the respondents (70.75%) grow olives in an area of less than 3 feedans.
- 4- More than half (56.75%) of the respondents have average experience in olive cultivation.



- 5- The vast majority of respondents (87.8%) have low membership in rural organizations.
- 6- Nearly three quarters of the respondents (74%) visit agricultural service organizations sometimes and rarely.
- 7- The majority of respondents (80.5%) have a neutral and negative attitude towards agricultural extension.

**Second The dependent variable: The role of agricultural extension in the production and marketing of the olive crop.**

**1- The degree of the agricultural extension agricultural role activities extension in extending agricultural knowledge production and marketing information for crop olives:**

Results from table (3) that a little more than two thirds of respondents (69,07%) stated that the level of agricultural knowledge production and marketing information for the crop of olive low ,as mentioned (16.49%) of them that the level of agricultural extension activities in this moderate area, while male (14.44%) only Alambjothin that the level of agricultural extension role activities guide way in this high field, and is clear from these results twice as the agricultural extension role extension activities in extending agricultural knowledge productivity, information and marketing of olive , as the majority of respondents (69%) stated that agricultural extension is low - grade, which reflects the weakness of the agricultural extension turn extension In providing farmers with knowledge, production and marketing information for olives, which requires the extension system to follow up on the causes of this shortcoming and work to help farmers play a more effective role in this field.

**Table No 3:** Distribution of respondents according to the level of extension activities and its role in providing farmers with knowledge, production and marketing information for the olive crop.

The level of agricultural extends carrying out the activities of its role	The number	%
Low (less than 27 degrees )	120	07.69
Medium (27 - less than 34 degrees )	84	49.16
High (34 degrees or more )	24	44.14
<b>Total</b>	291	100

**Source:** Compiled and calculated from the questionnaire.

The activities of the extension role of the surveyed extension agents in providing the farmers with knowledge and information about the production and marketing of olives were arranged according to the weighted average of the degree to which they carried out these activities, Table No (4) as follows as follows:

**Table No 4:** Arranging the activities of the extension role in providing farmers with knowledge, production and marketing information for the olive crop according to the weighted average.

No	T The activities of the extension role in providing farmers with knowledge, production and marketing information for olives .	Average	Ranking
1	Guiding farmers about the most appropriate time to irrigate olive seedlings .	1.44	1
2	Guiding farmers about the best time of day to irrigate fruitful olives	1.34	6
3	Guiding farmers about the most appropriate time to irrigate fruitful olive s	1.29	8
4	G Guiding farmers on the date of adding organic fertilizer .	1.22	9
5	In Instruct farmers about the amount of organic fertilizer added.	1.44	1
6	G Guiding the grower is the most appsuitable time for pruning.	1.37	4
7	Guiding farmers about the most appropriate method for the pruning process.	1.39	2
8	In Instruct farmers about the most appropriate time of day for the fertilization process .	1.36	5
9	Educating farmers about the fertilization proces .s .	1.38	3
10	In Instruct farmers on the most appropriate date for the process of resistance to fungal diseases .	1.32	7
11	Educate farmers on how the process . resistance to Fungal diseases .	1.29	8
12	G Guiding farmers farmers about the most appropriate date for the process of resisting . insect repellents.	1.18	12
13	R Resistance Educate farmers about how the process Alaqa insecticide .	1.20	10
14	Educate farmers about how the process of resistant Weeds.	0.16	13
15	Guiding farmers on the signs of ripening fruits.	1.19	11
16	Awareness of farmers how to collect the fruits.	1.15	14
17	Guiding farmers about the most appropriate method for the fruit sorting process.	1.13	16
18	.Guiding farmers on how to pack the fruits	1.16	13
19	Awareness of farmers how to store fruits.	1.09	17

20	Awareness of farmers how to transfer the fruits.	0.14	15
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Source :- Collected and calculated from the questionnaire, the maximum score for the scale is 2 degrees .

### 3-Problems facing the surveyed farmers in obtaining knowledge related to olive production and marketing and executive proposals to solve them.

The results showed a significant increase in the average degrees of the problems facing olive crop growers in obtaining executive knowledge and information in olive production and marketing, as shown in Table No. (5) The problem of the inadequacy of extension fields for olive ranked first in the degree of their presence at 92%, while the problem of the scarcity of agricultural extension visits to farmers in fields and homes.

Regarding olive production and marketing ranked second with a rate of 91.5%, and the lack of agricultural extension agents specialized in the field of production and marketing olives ranked third with 91% then came in fourth place the problems of lack of extension programs for olives with a rate of 89.5%, lack of television programs, and lack of extension campaigns for olives by 89.25%.

**Table No 5:** Distribution of respondents according to the average degrees of the problems they face in obtaining knowledge and executive degrees information in the production and marketing of olive crops.

No	The Problem	A Average	%
1	-The small number of agricultural extension workers specialized in the field of olive production and marketing.	3.64	91
2	-Poor knowledge of agricultural extension workers with sufficient information about olive production and marketing.	3.47	86.75
3	Lack of agricultural extension workers when they are needed.	2.28	57
4	Agricultural guidance does not have a specific place to go to .	3.15	78.75
5	scarcity of visits to counselors Alzerain Lamaze of legislators in the fields and houses regarding the production and Tsu j s olive .	3.66	91.5
6	Inadequate fields guidelines for Ba olives .	3.68	92
7	The lack of guidance releases Ba olives ..	3.54	88.5
8	The lack of extension programs for Ba olives .	3.58	89.5
9	Lack of access to agricultural extension magazines for farmers.	3.53	88.25
10	Lack of indicative conferences at the level of farmers' awareness centers.	2.22	88.5
11	Lack of extension conferences at the village level to educate farmers.	2.51	88.5
12	Lack of radio programs directed at farmers .	3.52	88
13	Lack of television programs directed at farmers.	3.57	89.25
14	lack of guidance campaigns for Ba olives.	3.57	89.25

The percentage of the total number of respondents was calculated for each crop, and the maximum score is 4.

**On this it is clear that the most important problems facing On this it the total agricultural respondents are:** the scarcity of visits by agricultural guides to farmers in the fields and homes regarding the production and marketing of olives. the inadequacy of extension fields for olives data- scarcity of access magazines guidance for agricultural farmers-lack of guidance releases With olive– the small number of agricultural extension workers specialized in the field of olive production and marketing.

#### b - for proposals.

Their most important proposals to solve these problems were shown in Table (6) the proposal to provide the specialized agricultural extension ranked first with a percentage of 88.3%, while the proposal to increase the extension fields ranked second by 73.9%, and the proposal to provide agricultural extension with information came in the third place by 69.4%, then the proposal to provide extension bulletins by 68.7% in the fourth place. It is clear from this that the most important proposals of the total farmers surveyed are: Increasing the number of specialized agricultural extension agents - Increasing the extension fields - Providing extension bulletins - Increasing agricultural extension visits to farmers in the fields and homes - Providing agricultural extension magazines to farmers.

**Table No 6:** Distribution of respondents according to their suggestions to solve the problems they face in the production and marketing of olive crops.

No	suggestion	The number	%	Ranking
1	Increasing the number of specialized agricultural extension agents.	257	88.3	1
2	Providing agricultural extension with information.	202	69.4	3

3	.Tu production d guides Alzerain at a time when the need for them.	151	51.9	13
4	4Provide the agricultural guide with a suitable place.	156	53.6	12
5	5Increasing visits were a T counselors Alzerain to Lamaze a pious.	197	67.7	6
6	Increasing the indicative fields.	215	73.9	2
7	Increasing the brochures.	200	68.6	4
8	Providing guidance programs for olives.	195	67	7
9	Providing agricultural extension magazines to farmers.	194	66.7	8
10	1Providing indicative conferences at the level of farmers' awareness centers.	195	67	7
11	Providing guidance conferences at the village level to educate farmers.	191	65.6	10
12	Increasing radio programs.	192	66	9
13	Increase television programs.	190	65.3	11
14	1Increase campaigns.	199	68.4	5

The percentage of the total number of respondents was calculated, and the maximum score is 4

#### 4-Problems related to production and marketing

**A-Productive problems:-** The results showed a significant increase in the olive growers, as shown in Table No. (7) the problem of the lack of trained labor ranked first with a rate of 92%, while the problem of the lack of pesticides ranked second with a rate of 91.5% And the problem of lack of water ranked third with a percentage of 91%, and the problem of primitive means of transporting the crop by 89.5%, then the problem of weeds infestation with a percentage of 89.25%,.

**It is clear from this that the most important productive problems facing the total farmers surveyed are:** the high price of fertilizers-the the lack of fertilizer provision - the primitive means of crop transportation the - Lack of availability of pesticides– the scarcity of visits by agricultural guides to farmers in the field homes regarding the production and marketing of olives the high price of agricultural machinery.

**Table No 7:** Distribution of the respondents according to the average degrees of productive problems in olive crops.

No	The Problem	Average	%
1	L .Lack of water.	3.64	91
2	The failure to provide ladders to harvest the fruits of the olive.	3.47	86.75
3	The lack of experience of agricultural labor in the service of the olive.	2.28	57
4	Lack of fertilizers.	3.15	78.75
5	Lack of pesticides.	3.66	91.5
6	Lack of trained workers.	3.68	92
7	The high price of agricultural machinery.	3.54	88.5
8	Primitive means of transporting the crop.	3.58	89.5
9	The high cost of fertilizers.	3.53	88.25
10	The high cost of pesticides	2.22	88.5
11	Increase in wages for workers.	2.51	88.5
12	Infection with diseases.	3.52	88
13	Insect infestation.	3.57	89.25
14	Infestation of weeds.	3.57	89.25

The percentage of the total number of respondents was calculated, and the maximum score

**b-marketing problems:** The results showed a noticeable rise in the average degrees of marketing problems as shown in Table (8) the problem of the exploitation of merchants ranked first with a rate of 94.25%, while the problem of high collection costs ranked second by 91%, and the problem of high transportation costs ranked third by 90.25% It is clear from this that the most important marketing problems facing the total farmers surveyed are : Exploitation of traders - high collection costs - high transportation costs - lack of suitable packaging.

**Table No 8:** Distribution of the respondents according to the average degrees of the presence of marketing problems in olive crops.

The problems	Average	%
1-Exploitation of merchants.	3.77	07.69

2 -Lack of trained workers.	3.43	49.16
3-High collection costs.	3.64	44.14
4 -High transportation costs.	3.61	100
5-Increase the wastage of the crop.	3.56	49.16
6 -Lack of proper packaging.	3.53	44.14
7 -High prices for packages.	3.56	100

The percentage of the total number of respondents was calculated, and the maximum score.

**From the previous presentation it was possible to reach the following most important research results:**

**-The most important problems facing the total agricultural respondents access to knowledge and executive information are:** the scarcity of visits by agricultural guides to farmers in the field and homes regarding the production and marketing, and the inadequacy of the special extension fields palms dates, lack of access magazines agricultural extension to farmers, lack of releases Extension for date palms, and the lack of agricultural extension agents specialized in the production and marketing of olives.

**-The most important proposals of the total agricultural respondents are:** the provision of specialized agricultural extension agents, and increase the indicative fields, and increase releases guidelines, and increasing agricultural extension workers visits to Lamaze of legislators in the fields and houses, and the provision of agricultural extension magazines for farmers.

**-The most important productive problems facing the total farmers surveyed are:** the high price of fertilizers, the high price of pesticides, lack of fertilizer provision, primitive means of crop transportation, lack of pesticides and high agricultural machinery.

**-The most important marketing problems facing the total of the farmers surveyed are:** the exploitation of merchants, the high costs of collection, the high costs of transportation, and the lack of suitable packaging.

**-College degree mouthpiece agricultural extension role in the production and marketing of the crop of olive:** the level of agricultural extension role in the production and marketing of the crop of olive: seen from the table (9) to 88.72 % of the respondents pointed out that the agricultural extension role was low in the production and marketing of the crop of olive, While 18.56percent of them said that the role of agricultural extension was medium, while 56.7 % of them stated that the role of agricultural extension was high.

**Table No 9:** Distribution of the respondents according to the level of the agricultural extension role.

Role level	The number	%
Low turn) below( 85) degrees	215	73.88
Medium role (from 85 - less than121)	54	18.56
High role( from 121 and above )	22	7.56
<b>Total</b>	291	100

**The results show in Table No. (10) lower averages and percentages scores in measuring the dimensions of the agricultural role of guidance from the theoretical average for each dimension separately:** where the activities carried out by the agricultural extension in agricultural knowledge production and marketing information for the crop of olive first place by 31.5 %, while the degree to which agricultural extension help in solving the problems facing farmers in obtaining knowledge ranked second at 30%, and then came the degree of agricultural extension assistance in solving problems facing farmers during the production and marketing of the olive crop ranked third with 28%.

**Table No 10:** Distribution of respondents according to the average dimensions of the role of agricultural extension.

Dimensions of measuring the role of agricultural extension	Max degree	Average	%	Ranking
<b>1 -The degree of agricultural extension carrying out the activities of its extension role in providing farmers with knowledge, production and marketing information for the olive crop .</b>	20	12.6	31.5	1
<b>2 -The degree to which agricultural extension help in solving the problems facing farmers in obtaining knowledge .</b>	56	16.8	30	2
<b>3 -The degree to which agricultural extension help in solving the problems facing farmers during the production and marketing of</b>	88	24.3	28	3

**Second:** - The relationship between the personal variables of the farmers surveyed and the role of agricultural extension in the production and marketing of the olive crop.

To study this relationship has been formulated statistical hypothesis " no t found a correlation between age - level education - cultivated area - experience in agriculture - membership in rural organizations - the frequency of agricultural services organizations - sources of information farmers respondents – agricultural - Trafficking e towards guidance The agricultural extension, and the role of agricultural extension in the production and marketing of the olive crop.

**As shown in Table No. (11) as follows:**

**1- Age:** To test the significance of the relationship between age and the degree of the role of agricultural extension in the production and marketing of the olive crop , the value of the simple correlation coefficient was calculated, which amounted to -0.457, which is a negative value greater than its tabular counterpart at the level of 0.01, and this indicates the existence of an inverse significant relationship between age and the role of agricultural extension In the production and marketing of the olive crop, as the increase in age leads to a decrease in the role, and this is due to the fact that the old farmer adheres and is satisfied with the knowledge and information he has and does not seek guidance.

**2- The degree of education of the respondents:** To test the significance of the relationship between the degree of education of the respondent and the degree of the role of agricultural extension in the production and marketing of the olive crop, the value of the simple correlation coefficient was calculated, which amounted to 0.557, which is a positive value greater than its tabular counterpart at the level of 0.01, and this indicates the existence of a direct significant relationship between the degree of education of the respondent and the degree of The role of agricultural extension in the production and marketing of the olive crop , as the increase in education leads to an increase in the role and vice versa, and this may be due to the fact that the increase in education may make the farmer seek everything that is modern and find that in the extension, the cycle increases.

**3- Cultivated area:** To test the significance of the relationship between the cultivated area and the degree of the agricultural extension’s role in the production and marketing of the olive crop, the value of the simple correlation coefficient was calculated, which amounted to 0.637, which is a positive value greater than its tabular counterpart at the level of 0.01, and this indicates a direct significant relationship between the cultivated area and the degree of the role of Agricultural extension in the production and marketing of the olive crop, meaning that each increase in the area is accompanied by an increase in the role of extension.

**4- Agricultural experience:** To test the significance of the relationship between agricultural experience and the degree of the role of agricultural extension in the production and marketing of the olive crop , the value of the simple correlation coefficient was calculated, which amounted to -0.227, which is a negative value greater than its tabular counterpart at the level of 0.01, and this indicates the existence of an inverse significant relationship between agricultural experience and the degree of The role of agricultural extension in the production and marketing of the olive crop , meaning that every increase in experience is accompanied by a decrease in the role of extension, and this may be due to the fact that increased experience makes them have a large stock of knowledge and information, which makes them not seek agricultural extension and thus its role decreases.

**5- Degree of membership in social organizations:** To test the significance of the relationship between the degree of membership in social organizations and the degree of the role of agricultural extension in the production and marketing of the olive crop , the value of the simple correlation coefficient was calculated, which amounted to 0.261, which is a positive value greater than its tabular counterpart at the level of 0.01, and this indicates the existence of a direct significant relationship between the degree of membership In social organizations and between the degree of the role of agricultural extension in the production and marketing of the olive crop and organic, that is, the increase in the degree of membership of the organizations is accompanied by an increase in the role of extension, and this may be due to the increased contact of these farmers with the educated and educated, and may even be educated and educated themselves, which contributes In the rise of the role of counseling they have.

**6- Frequency of agricultural service centers:** To test the significance of the relationship between the degree of frequency on agricultural services centers and the degree of the role of agricultural extension in the production and marketing of the olive crop , the value of the simple correlation coefficient was calculated, which amounted to 0.417, which is a positive value greater than its tabular counterpart at the level of 0.01, and this indicates the existence of a direct significant relationship between the degree of The frequency of the agricultural service centers and the degree of the agricultural extension’s role in the production and marketing of the olive crop, meaning that an increase in the frequency of the agricultural service centers is accompanied by an increase in the role of extension, as the increase in the

frequency of the agricultural service centers leads to these farmers benefiting from the services provided by these centers. Which contributes to the high role of counseling for them.

**7 - The degree of trend towards agricultural extension:** To test the significance of the relationship between the degree of trend towards agricultural extension and the degree of the role of agricultural extension in the production and marketing of the olive crop, the value of the simple correlation coefficient was calculated, which amounted to 0.793, which is a positive value greater than its tabular counterpart at the level of 0.01, and this indicates the existence of a direct significant relationship between the degree of trend Towards agricultural extension and the degree of the role of agricultural extension in the production and marketing of the olive crop, and this means that the increase in the degree of orientation toward extension leads to an increase in the role, and this may be due to the fact that the increase in the trend means an increase in their confidence in extension and thus leads to an increase in the extension role.

**Table No 11:** The values of the correlation coefficients between the studied personal variables and the degree of the role of agricultural extension in the production and marketing of medicinal and aromatic plants.

Variables	Correlation coefficient values
1-tooth	-0.457**
2 -Education	0.557**
3 -Cultivated area	0.637**
4 -Experience in agriculture	-0.227**
5 -Membership in rural organizations	0.261**
6 -Frequency of agricultural service centers	0.471**
7 .Trafficking e towards agricultural extension	0.793**

Significant at the 0.05 level \*\* Significant at the 0.01. level

Based on the previous presentation of the results of the correlation between the studied personal variables and the total degree of the role of agricultural extension in the production and marketing of the olive crop, we were not able to reject the statistical hypothesis completely.

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