

The Knowledge Needs of the Vegetable Farmers in the Field of Organic Agriculture in the Villages of Haway Al-Bassat and Jalam Samarra of Samarra District / Salah -addin Governorate

Maha Saeed Shada Juma,a

raafat riyadh

Mohammad ezzat mohammad

College of Agric./ Univ. of Tikrit

College of Agric./ Univ. of Tikrit

College of Agric./ Univ. of

Tikrit

- **Date of research received 27/6/2019 and accepted 15/10/2019.**

Abstract

The research aimed to identify The Knowledge Needs of the Vegetable Farmers in the Field of Organic Agriculture in the Villages of Haway Al-Bassat and Jalam Samarra of Samarra District / Salah - addin Governorate. By identifying the level of knowledge and the level of application of the vegetable Farmers and identify the problems facing them to get knowledge in the field of organic agriculture.

The research community included the villages of Hawi al-Bassat and Jalam Samarra. The number of farmers was 600. A random sample (%8.33) was selected to be the number of farmers (50) farmers. The data were collected in a personal interview using a specially prepared questionnaire, it consisted of two parts: the first part for the independent factors of the respondents and the second part is related to dependent factors and includes two areas.

-The first area includes the level of knowledge needs of farmers in the field of organic agriculture through (24) paragraph. It was measured by a pentagram.

- The second area includes (23) problems that farmers facing them to get knowledge in the field of organic agriculture. It was measured by a triple scale, after confirming the apparent sincerity and the authenticity of the content of the measuring instrument by presenting it to the specialists, the stability was calculated in alpha-kernbach method Percentage, arithmetic mean, simple correlation coefficient (Pearson) and rank correlation coefficient (Spearman) were used to display and analyze data. And (T test) to analyze the research data using a statistical analysis software Spss. The most important results of the research were as follows:

- 58% of the respondents fall within the category of large need with an average knowledge need of (103) degree, which means that most respondents have a lack of information in the field of organic agriculture.
- The existence of a significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture and each of: age, educational level, participation in training courses.
- The main problems that limit organic agriculture in the Villages of Haway Al-Bassat and Jalam Samarra of Samarra District /Salah-addin Governorate is: (Not knowing the costs of production requirements for organic agriculture), (Preparation of organic fertilizers requires considerable effort and time).

Keywords: The Knowledge Needs, Vegetable farmers, Organic Agriculture.

الحاجات المعرفية لزراع الخضر في مجال الزراعة العضوية بقريتي حاوي البساط و جلام سامراء التابعتين

لقضاء سامراء / محافظة صلاح الدين

(3) محمد عزت محمد
جامعة تكريت / كلية الزراعة

(2) رأفت رياض عبد الوهاب
جامعة تكريت / كلية الزراعة

Raafat.riyadh@tu.edu.iq

07708455237

(1) مها سعيد شدة جمعة
جامعة تكريت / كلية الزراعة

maha.saeed@tu.edu.iq

07708479985

• تاريخ استلام البحث 2019/6/27 وقبوله 2019/10/15

الخلاصة

استهدف البحث التعرف على الحاجات المعرفية لزراع الخضر في مجال الزراعة العضوية بقريتي حاوي البساط و جلام سامراء التابعين لقضاء سامراء / محافظة صلاح الدين من خلال التعرف على المستوى المعرفي ومستوى التطبيق لزراع الخضر والتعرف على اهم المشكلات التي تواجههم للحصول على المعرفة في مجال الزراعة العضوية . اذ شمل مجتمع البحث زراع قريتي حاوي البساط و جلام سامراء والبالغ عددهم (600) مزارع ، وتم اختيار عينة عشوائية بنسبة (8.33%) ليصبح عدد المزارعين (50) مزارع . وتم جمع البيانات بطريقة المقابلة الشخصية باستخدام استمارة استبيان اعدت خصيصاً لهذا الغرض .تكونت من جزئين جزء خاص بالعوامل المستقلة للمبجوثين وجزء ثاني خاص بالعوامل التابعة ويضم مجالين تضمن المجال الأول مستوى الحاجات المعرفية للزراع في مجال الزراعة العضوية من خلال (24) فقرة ، تم قياسها عن طريق مقياس خماسي. اما المجال الثاني فتضمن (23) مشكلة يواجهها الزراع للحصول على المعرفة في مجال الزراعة العضوية تم قياسها عن طريق مقياس ثلاثي. وبعد التأكد من الصدق الظاهري وصدق المحتوى لأداة القياس بعرضها على المختصين تم احتساب الثبات بطريقة الفا كرنباخ . واستخدم في عرض وتحليل البيانات كل من النسبة المئوية ، والمتوسط الحسابي ، ومعامل الارتباط البسيط (Pearson) ، و معامل الارتباط الرتبي (Spearman) ، واختبار t لتحليل بيانات البحث باستخدام برنامج لتحليل الاحصائي Spss . وجاءت اهم نتائج البحث على النحو التالي :

- ان 58% من المبجوثين تقع حاجاتهم ضمن فئة الحاجة الكبيرة وبمتوسط حاجة معرفية مقدارها (103) درجة ، وهذا يعني ان اكثر المبجوثين لديهم نقص معلومات في مجال الزراعة العضوية.
- وجود علاقة ارتباط معنوية بين الحاجات المعرفية لزراع الخضر في مجال الزراعة العضوية وكل من : العمر ، المستوى التعليمي ، المشاركة بالدورات التدريبية.
- اهم المشاكل التي تحد من الزراعة العضوية بقريتي حاوي البساط و جلام سامراء التابعتين لقضاء سامراء / محافظة صلاح الدين من وجهة نظر المبجوثين هي : (عدم معرفة تكاليف مستلزمات انتاج الزراعة العضوية) (تحضير الأسمدة العضوية يحتاج إلى جهد ووقت كبيرين) .

الكلمات المفتاحية : الحاجات المعرفية ، زراع الخضر ، الزراعة العضوية .

Introduction and research problem

Agricultural development is one of the important pillars of the socio-economic development process and is doubly important, especially in developing countries where the agricultural sector is the main pillar of the national economy (Al-Khafaf, 2010: 1). Agriculture is a major source of food, absorbs a large number of labor and provides raw materials for many industries to obtain financial resources through export earnings (Iazar 2015 :2). The agricultural sector is the most important contribution to the Iraqi economy because of the availability of agricultural crops as raw materials in most other economic sectors, as well as its role in providing the food products necessary to meet the local demand for food (Al-Azi, 2010: 1). Rural development efforts focus on agricultural development to increase and utilize resources and improve productive efficiency at the national level to enhance the contribution of the agricultural sector to economic development. This contribution is to increase agricultural production (Al-Rimawi, 1995: 18).

As the development of the agricultural sector is one of the most important issues that the world seeks to achieve through development programs (Dulaimi, 2011: 22). The products of the agricultural sector are an indispensable need in human life because they provide the people with the basic needs to survive and maintain the survival of the human species on earth (Al-Aboudi, 2014: 1). Although human success depends on the use of chemicals such as industrial pesticides and mineral fertilizers to achieve a breakthrough in agricultural production, it has proved its ability to change environmental conditions. As a result, there were many disadvantages such as pollution of water resources, soil degradation, air pollution, disappearance of germplasm of many plants and animals, and depletion of water resources as a result of adaptation of agriculture (Abu Saada, 2008: 16). Vegetable crops occupy an important position in the agricultural sector due to increased demand due to the increasing population growth on the one hand and changes in the food consumption pattern on the other. The vegetables are characterized by high nutritional value, containing the essential elements and vitamins necessary for human building (Zaki and others, 2007: 110-117).

That any changes in agriculture will be reflected in the results of the lives of people and the environment of nature directly, and not one of the rapid change in agricultural methods that have become dependent mainly on chemical technology in agriculture.

This change with the passage of days led to environmental pollution, deterioration of soil health, loss of biodiversity and others. As well as affecting the health and lives of people (Thamaraiselvan, J., 2010: 24).

As a result of the increase in the number of consumers interested in the type of clean food health has seen in recent years increase in global attention to the issues of health and the environment, after confirming the many negative effects resulting from the widespread use of pesticides and fertilizers. The importance of the need to develop organic agriculture has emerged as a vital system taken from nature that does not depend on any chemical inputs, limiting the increase of environmental pollution and improving the agricultural conditions in the long term.

This led to government policies in most countries of the world to encourage organic agriculture. (Abdullah, 2004: 8). Organic agriculture is a comprehensive production management system that favors the maximum use of organic matter (crop residues, animal waste, organic residues on farms, growth regulators, biocides) and encourages the use of industrially produced agricultural outputs to maintain soil productivity, fertility, and insect control.

From sustainable natural resources and a healthy environment (Munir Hussain Naik, 2009: 50). Organic agriculture is now a rapidly growing and highly dynamic sector in the global food industry (Ellis, W. Panyaku, 2006: 92-99). Organic agriculture contributes to food security by improving household food self-sufficiency or by building farmers' self-reliance. With its blend of modern science and traditional knowledge, organic agriculture can convert low-input and subsistence farms into more productive systems with increased capacity to manage locally available resources. The market for certified organic agriculture products provides income opportunities to farmers; and organic agriculture's focus on efficient use of natural resources and biodiversity, and on recycling of renewable resources, helps sustain a healthy environment.

Organic agriculture has its roots in traditional agricultural practices that evolved in countless villages and farming communities over the millennia. By trial-and-error local farmers passed their best results from generation to generation. The modern face of organic agriculture emerged in the late 1960, when farmers and consumers began to recognize that the enormous amount of chemicals

being used in both crop and animal production could have dire consequences for the earth and its people. (food and agriculture organization of the united nations ,2003:2-3).

Organic agricultural products have achieved remarkable growth in recent years in many countries of the world. Consumers' demand for organic products has as the organic product has become an important element in the strategic competition for traders of agricultural products in many countries of the world, and statistics show the steady increase in areas cultivated organic system in the world from 2002 to 2006. The area of Africa has multiplied by (6) times, Asia on the continent (6) times, the South American continent of (1.36) times and the European continent at (1.27) times, the continued increase in the economic value of organic products in the world reflects the extent to which these systems are of interest to consumers as the value of organic products in 2010 was estimated at (94.2) billion dollars, In the Arab world, organic agriculture has developed rapidly.

The technology is adopted in more than 12 countries in the Arab world through the cultivation of about 118756 hectares, by (4959) producer whether farmer or investor as well as cultivated land there are areas of wild natural products equivalent to (794170) hectares Tunisia is the first Arab country in terms of the proportion of arable land, with 39% representing almost two-thirds of the arable area, followed by Sudan with 13.6% Egypt is third with (9.8%) Saudi Arabia is fourth with (8.19%) and Tunisia is the first Arab country in organic olive production Tunisia, Syria and Morocco are among the top ten countries in organic olive growing internationally.

Egypt is also the largest producer of organic cotton in the Arab world Morocco is one of the top ten countries in the world for natural organic products, including forest products, pastures, medicinal and aromatic plants. Tunisia, Saudi Arabia, the United Arab Emirates and Egypt also have the largest organic palm production area in the world and the Arab world (Ramadan, 2011: 36).

In Iraq, the establishment of the National Center for Organic Agriculture in 2009 under the Department of Plant Protection is a major step in the field of dissemination of organic farming technology, including (13) project for the preparation of organic fertilizers (12) governorates.

The most important activities of the National Center for Organic Agriculture are the establishment of training courses for farmers , Supervising the production of fertilizers and ways to use them , Production of vital inputs such as organic fertilizers and eco-friendly pesticides , The establishment of laboratories for the examination and analysis of fertilizers and soil, work on the preparation of the law of organic farming in Iraq, and the establishment of two organic farms the firestone for palms in the holy province of Karbala (Razaza gardening station) and the second one in anbar province (waha 45), Experiments on the use of organic fertilizers in the growth and production of potatoes, where an experiment was conducted to grow potato crop in the desert region in the holy province of Karbala and the result was good. However, we find that the situation of workers in agricultural extension in the province is still below the required level in the field of organic agriculture and this is confirmed by the study of the Al- Attabi in (2013) With a significant need for the farmers in the use of organic manure inside greenhouses (Al-Attabi, 2013: 50).

Therefore, this could be an indicator that reflects on the role of agricultural extension agents in the field of organic fertilizers. And from here the idea of research is to identify and know the role of extension in the development of knowledge of vegetable farmer in the field of organic agriculture . Which is the responsibility of the agricultural extension system, which plays a major role in awareness vegetable growers, educating them, developing their knowledge and developing them in the field of organic agriculture, thus improving their performance and raising the level of application, Successful extension work is based on gaining the trust of the vegetable farmer by

knowing their tangible and intangible needs, and their desires and satisfying their needs (Zahran, 1999: 125). This is what agricultural extension workers are trying to do. Therefore, the current research came to answer the following questions:

- 1- Determination of the level of knowledge needs for vegetable farmer in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra, which belong to the Samarra / Salah - addin Governorate in general.
2. What is the correlation among knowledge needs and some personal characteristics (age, educational level, size of farm, Type of agricultural tenure, participation in organic farming training courses, sources of agricultural information).
- 3 - What are the most important problems faced by vegetable farmers to get knowledge in the field of organic agriculture descending.

Research objectives:

- 1- Identifying the knowledge needs of the vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra, which belong to the Samarra / Salah - addin Governorate in general.
- 2- Determine the correlation between knowledge needs and some personal characteristics (age, educational level, size of farm, Type of agricultural tenure, participation in organic farming training courses, sources of agricultural information
- 3- Determine the size of the problems faced by vegetable farmers to get knowledge in the field of organic agriculture descending

Statistical Hypotheses:

- 1- There is no significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra of Samarra district Salah - addin Governorate and Age.
- 2- There is no significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra of Samarra district Salah - addin Governorate and Educational level.
- 3- There is no significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra of Samarra district Salah - addin Governorate and size of farm.
- 4- There is no significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra of Samarra district Salah - addin Governorate and Type of agricultural tenur.
- 5- There is no significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra of Samarra district Salah - addin Governorate and participation in organic farming training courses.
- 6- There is no significant correlation between the knowledge needs of vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra of Samarra district Salah - addin Governorate and sources of agricultural information

Procedural definitions:

- 1- Knowledge needs: It means the information and knowledge that farmers need in field of organic agriculture.
- 2- Vegetable farmers: They are people who grow vegetables in the search area.

- 3- Organic Agriculture: An agricultural system aimed to increasing soil fertility depends on the use of natural materials for agriculture rather than pesticides, chemical fertilizers and growth hormones, and the use of genetically modified strains and organisms.

Materials and Methods of Research:

Search area: The villages of Haway al-Bassat and Jalam Samarra, which belong to the Samarra district / Salah - addin Governorate, were selected for research purposes for the large number of vegetable farmer in the field of organic agriculture.

Research community:

The research included all vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra and The number of research community was (600) farmers according to stats samarra agriculture division. A random sample (8.33%) was taken from them, thus the sample of the research became (50) farmers. A sample of 15 farmers from outside the sample was taken to measure the stability, which was its value (0.89).

Measurement of search variables:

1- Measure independent factors: The independent variables included in the study were measured as follows:

- a- Age: Measured by the number of years of age of the respondent at the time of data collection
- b- Educational level: Measured through the following alternatives: (illiterate, read and writing, primary school, secondary school, preparatory School, Institute, college). The following numeric values were given (1,2,3,4,5,6), respectively .
- c- size of farm: The area of land planted with measured by dunums.
- d- Type of agricultural tenure: It was measured by the following alternatives: (ownership, contract, rent). The following numerical values were given (3,2,1) respectively.
- e- participation in organic farming training courses.: measured by the following alternatives: (participant, non-participant) The following numerical values were given: (2,1) respectively
- f- Sources of Agricultural Information: To measure this variable, the researcher used (8) sources and placed in front of each source four alternatives (always, sometimes, rarely, do not get), The numerical values (1,2,3,4) were given respectively, so that the values expressed for this variable are limited to (8 - 32).

2- Measuring the level of knowledge needs of vegetable farmers in the field of organic agriculture:

The knowledge needs of vegetable growers in organic agriculture were measured through (24) A paragraph was put in front of each of the following alternatives (Very large, large, medium, few, very few) Numeric values (1,2,3,4,5) were given, thus limiting the values expressing this variable (24 - 120).

3- . Measuring the level of problems faced by vegetable farmers to get knowledge in the field of organic agriculture:

The level of problems directed by vegetable growers was measured through (23) A paragraph was put before each of the following alternatives: (very important, medium importance, low importance) Numeric values (1,2,3) were given, thus limiting the values expressed by this variable (23 - 69).

Statistical methods: In order to reach the research objectives, he used many statistical methods and methods such as: Range, arithmetic mean, Pearson correlation coefficient, Spearman correlation law, t-test, percentage.

Results and discussion:

The first objective: is identifying the knowledge needs of the vegetable farmers in the field of organic agriculture in the two villages of haway Al-Bassat and Jalam Samarra, which belong to the Samarra / Salah - addin Governorate in general:

Results showed that the highest numerical value of the level of knowledge of the vegetable farmer is (117) degrees and the lowest numerical value is (49) degrees with a standard deviation of (16.403).

The respondents were divided according to their knowledge needs to three categories (Low, Moderate, High) as shown in Table (1): **Table (1) Distribution of the respondents according to the level of knowledge needs of the vegetable farmers in the field of organic agriculture**

n	Categories	Degrees of knowledge need	the number	percentage	The average degree of knowledge need	\bar{X}	N	S.D
1	Low	49 – 71	6	12	61	92.28	50	16.403
2	Moderate	72 – 94	15	30	83.6			
3	High	95 – 117	29	58	103			
			50	100				

Table (1) shows that 58% of the respondents had their needs in the category of High need and an average knowledge need of (103) degrees, This means that most of the respondents have a lack of information in the field of organic agriculture so their knowledge needs are great. This may be due to the feeling that vegetable farming methods used in agriculture and fertilization are traditional methods They need modern methods and activities that save time, effort and money and increase the quantity and quality of production.

The second objective: is to determine the correlation among knowledge needs and some of the following social-economical and connected characteristics:

- 1- **Age** The results of the study showed that the age of the respondents ranged between (25-62) years with an average of (43.32) years and with a standard deviation of (11.93) and The respondents were divided into three age categories and using the rang as shown in Table (2):

Table (2) Distribution of respondents according to level of knowledge need and age

Age categories	Number of respondents	percentage	The average degree of knowledge need	The value of r	At the level
25-37	18	36	98.8	** 0.45-	0.01
38-50	19	38	93.4	$\bar{X} = 43.32$ SD=11.93 N =50	
51-63	13	26	81.8		
	50	100			

Table (2) shows that the highest percentage of respondents is in the age category (38-50) by (38%) and the average knowledge needs (93.4) Degree, And the lowest percentage falls within the age

category (51-63) by (13%) and the average knowledge need of (81.8) degree. To find out if there is a correlation between the knowledge need of vegetable farmers and age, use the simple correlation coefficient of (Pearson) Which is value (-0.45 **) This finding can be explained by the fact that increased age leads to increased experience in organic agriculture This leads to reduced knowledge needs, and farmers with younger ages are more thirsty for modern information in the field of organic agriculture and more receptive to modern innovations.

2- Educational level:

Results showed that the educational level of the respondents ranged from (illiterate) to (college). The respondents were distributed according to their educational level to seven categories, as shown in Table (3).

Table (3) Distribution of respondents according to level of knowledge need and level of education

Education level	Number of respondents	percentage	The average degree of knowledge need	The value of rs	At the level
illiterate	1	2	117	** 0.47-	0.01
Reads and writes	9	18	99.77	N =50	
Primary school	12	22	95.72		
secondary school	8	16	87.5		
preparatory School	3	6	93.66		
Institute	7	14	106.28		
College	10	20	74.63		
Total	50	100			

In the Table (3) also showed the results that the highest percentage of respondents was in the (primary) category and to find out if there is a relationship between the knowledge need and the educational level. The use of Spearman correlation coefficient, which is value (-0.47**), which is an inverse correlation relationship. The result can be explained by the fact that education leads to an increased desire to search for everything new in The field of organic agriculture and the knowledge acquired by farmers are wider when their level of education is higher. This leads to reduced knowledge needs.

3-size of farm:The results showed that the cultivated areas ranged between (2 - 70) dunums divided into three categories and using the term, as shown in Table (4)

Table (4) Distribution of respondents according to size of farm

Categories	Number of respondents	percentage	The average degree of knowledge need	The value of R
Low (2 - 24) dunums	10	20	88.8	0.02-
Medium (25- 47) dunums	12	24	93.58	$\bar{X} = 46.88$ $SD = 21.03$ $N =50$
Large (48-70) dunums	28	56	93.07	
Total	50	100%		

In the Table (4) The largest Categories of the farmers are those who have large size of the farm, where the percentage of about (56%) and the number of (28) farms and the average needs of knowledge reached (93.07), To find the correlation between knowledge needs and cultivated area, use Pearson correlation coefficient, where the correlation coefficient value is (- 0.02) This indicates no correlation relationship.

4- Type of agricultural tenure:It was found that the type of agricultural tenure of the respondents was (property, contract, rent), which were divided into three categories according to the type of agricultural tenure As shown in Table (5)

Table (5) Distribution of respondents according to the type of agricultural tenure

Categories	Number of respondents	percentage	The average degree of knowledge need	The value of R
property	2	4 %	89.5	N =50 0.02-
contract	47	94 %	92.5	
rent	1	2 %	84	
Total	50	100%		

In the Table (5) shows that the highest percentage of respondents within the category of contract by (96%) and to find the relationship between the knowledge needs and the type of agricultural tenure. used the correlation coefficient Spirman, where the value of correlation coefficient (- 0.02). This indicates no correlation relationship

5- participation in organic farming training courses:

The results showed that the highest percentage of respondents (90%) was in the (non-participant) category with an average knowledge needs requirement of (94.7) degree, the lowest percentage of respondents is in the category of (participant) by (10%) and the average knowledge needs of (69.8) degree and as shown in Table (6).

Table (6): Distribution of respondents according to level of knowledge needs and participation in organic farming training courses

Categories	Number of respondents	percentage	The average degree of knowledge need	The value of rs	At the level
participant	5	10 %	69.8	**0.45-	N =50 0.01
Not participating	45	90 %	94.7		
Total	50	100%			

In the Table (6) shows that the highest percentage was in the category (non-participant), and to find if there was a correlation relationship between the level of knowledge need and participation in organic farming training courses, (-0.45 **). The reason may be that farmers who are not participation in organic farming training courses are more in need of extension courses and therefore, the less their knowledge needs, the greater the need for organic farming training courses.

6-Sources of agricultural information:

The results indicated that the highest numerical value obtained by the reach information sources is (23) degrees, and the lowest numerical value is (12) degrees, they were divided into three categories using range, as shown in Table (7):

Table (7) Distribution of respondents according to reach to information sources

Categories	Number of respondents	percentage	The average degree of knowledge need	The value of R
Low (12 - 15)	19	38	93.36	0.09 -
Medium (16- 19)	24	48	96.12	$\bar{X} = 16.9$ SD = 2.10 N =50
high (20-23)	7	14	75.42	
Total	50	100%		

In the Table (7) shows that (38%) of the respondents are in the low category (12-15) and the number of respondents was (19), while the medium category (16-19) On the Highest percentage of respondents (48%) And the number respondents was (24) , While the high category (14%) Ranging from (20 – 23) and the number of respondents was (7), and to find if there was a correlation relationship between knowledge need and reach to information sources, Pearson's correlation coefficient (-0.99) This indicates no correlation relationship.

The third objection: Determine the size of the problems facing vegetable farmers to get knowledge in the field of organic agriculture .

Table (8) shows the size of the problems, the arithmetic mean and the rank of each of the problems.

	Problems	Arithmetic average	Ranked
1	Not knowing the costs of organic agriculture production requirements	3.88	1
2	Preparation of organic fertilizers requires considerable effort and time	3.87	2
3	There is no full awareness of the use of predators	3.54	4
4	Increase competition between traditional (inorganic) products with organic products	3.52	5.5
5	The importance of vegetable farming in quantity of production, not production quality	3.52	5.5
6	Lack of organic production requirements in the markets	3.38	7
7	There is no demand for organic products in local markets	3.3	8
8	Consumers do not know about the benefits and advantages of organic farming products	3.28	9
9	Organic fertilizers are not always available in local markets	3.26	10
10	Lack of availability of agricultural inputs such as seeds, fertilizers, organic pesticides in easy way for farms	3.24	11.5
11	The scarcity of organic fertilizers from the General Company for Agricultural Supplies	3.24	11.5
12	Lack of sufficient expertise in organic agriculture by agricultural	3.22	13.5

	engineers and employment		
13	The absence of Extension fields applied by the organic farming method	3.22	13.5
14	There is no difference in prices between organic production and traditional production	3.17	15
15	Lack of training courses for farmers in organic agriculture	3.18	16
16	Farmer's conviction of the preference of chemical fertilizers and agricultural pesticides	3.16	17
17	There is no official governmental institution that approves organic products	3.15	18.5
18	Non-support of farmers with machinery, equipment and raw materials for the application of organic agriculture	3.15	18.5
19	Chemical fertilizers give faster results than compost	3.14	20
20	Not supplying vegetable farmers with organic fertilizer by the General Company for Agricultural Supplies	3.12	21
21	There are no governmental institutions for the production of organic fertilizers	3.1	22
22	Limited guidelines extension on organic agriculture	3.08	23
23	Lack of extension programs for the dissemination of organic farming technology	3.06	24

In the Table (8) shows that the paragraph (**Not knowing the costs of organic agriculture production requirements**) came first This may be due to the lack of government support for this type of agriculture .While the paragraph (**lack of extension programs for the dissemination of technology of organic agriculture**) ranked last and may be due to the lack of role of agricultural extension and the lack of awareness of farmers the importance of organic agriculture.

Conclusions:

- 1- The results of the study showed that there is a great knowledge need among farmers in the field of organic agriculture.
- 2- The results indicated that both the age and the level of education and participation in organic farming training courses have a significant correlation with the cognitive needs of the farmers in the field of organic agriculture.
- 3- The spread of organic farming technology among protected vegetable growers needs government support, particularly in the area of legislation on organic agriculture to protect organic products, provide organic fertilizers and provide alternatives to chemical pesticides.
- 4- It was found that each age, level of education and participation in organic farming training courses have a significant correlation with the knowledge needs of the farmers in the field of organic agriculture
- 5- There are many problems faced by vegetable farmers to get knowledge in the field of organic agriculture, the most important of which are (Not knowing the costs of production of organic

agriculture) in the lowest proportion of problems is the (lack of extension programs for the technology of organic farming)

Recommendations:

- 1 - Based on the results showed that the majority of the respondents did not receive training courses in the field of organic agriculture, so the guidance agencies in the province to intensify efforts to provide courses in this area.
2. Encouraging and motivating farmers from the Directorate of Agriculture and the extension system and providing material and moral support for the adoption of organic farming techniques
3. Spread the culture of organic agriculture in seminars and conferences and in television and radio programs to raise awareness among citizens
- 4 - Government support for organic farming technology through the receipt of organic products and the opening of local marketing outlets
- 5 - Provide simplified agricultural publications to communicate information in the field of organic agriculture

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