

## Educational Needs of Strawberry Growers In the Kurdistan Province of Iran

<sup>1</sup>Jamal F. Hosseini and <sup>2</sup>Serveh Ahmadi and <sup>3</sup>Mohammad Chizari

<sup>1</sup>Agricultural Extension and Education Dept, Science and Research Branch,  
Islamic Azad University, Tehran, Iran.

<sup>2</sup>Science and Research Branch, Islamic Azad University.

<sup>3</sup>Tarbiat Modaress University, Tehran, Iran

---

**Abstract:** The main purpose of this study was to assess the educational needs of the strawberry growers in the Kurdistan Province of Iran. The research design of this study was carried out by descriptive and analytical methods through a multi-stage cluster sampling technique, 185 Strawberry growers were selected for the study. A four part questionnaire was developed to collect data. A pilot study was conducted to determine the reliability of the questionnaire for the study. A Cronbach's alpha reliability coefficient of 81% was achieved for the instrument. The results indicated that Strawberry growers had medium knowledge and skills (as unfelt educational needs gap) in performing agricultural production practices... There was a statistically significant relationship between educational level, work experience, attending the educational classes, using radio programs, visit the sample farm, contact with agricultural service center, contact with experts and quality of and Strawberry grower's educational needs. Multivariate regression indicated that 32.0 % ( $R^2=.32$ ) Of the variance in the Strawberry grower's educational needs could be explained by quality of educational classes and number of visits to sample farms.

**Key word:** Educational Needs, Strawberry Growers, Kurdistan

---

### INTRODUCTION

Strawberry production plays an important role in economy of rural areas in Province of Kurdistan. In recent years strawberry has become a source of income for farmers and about 88 percent of strawberry produced in the country is from the Province of Kurdistan. The latest statistics by Ministry of Jihad Agriculture shows about 2113 ha of lands in that Province is allocated for production of strawberry and annual production is estimated about 21130 ton.

Borg and Gall, (1983) defined need as "the discrepancy between an existing condition and desired set of conditions" (p.753). Burton and Merrill, (1977) summarized six areas of educational needs: normative need, felt need, expressed need or demand, comparative need, anticipated or future need and critical-incident need. Needs assessment is a process that identifies needs and decides upon priorities among them (Scarvia and *et al.*, 1975) and any systematic approach to setting priorities for future action (Witkin, 1984). Methods of needs assessments vary from formal to informal and can be classified into seven main types: gap or discrepancy analysis, observation of current situations, asking individuals for their perceptions, reviewing performance appraisals, interviews, group interviews (focus groups), questionnaires and surveys (McCoy, 1993; Grant, 2002). Together, these formal and informal methods present an effective procedure for needs assessment.

Several researches were done in Iran about the educational needs of different group of farmers. Tabatabaee Far, (2003) in a study about needs of cotton growers in City of Garmsar has found out there was statistically significant relationship between age, attending the educational classes, visits to sample farms, contact with extension agents, using extension magazines with educational needs of farmers.

Shokrollah Zadeh, (2005) in a research about educational needs of farmers who grow cucumbers has pointed out there was positive relationship between age, educational level, acres under cultivation, work experience and using channels to receive the information with educational needs of farmers. Naseri, (2005) has found out there was relationship between acres under cultivation, age, work experience, contact with extension agents, attending the educational classes and educational films with educational needs of tobacco growers in Province of Kurdistan.

---

**Corresponding Author:** Jamal F. Hosseini, Agricultural Extension and Education Dept, Science and Research Branch, Islamic Azad University, Tehran, Iran.  
Email: jamalfhosseini@yahoo.com

It is essential for national planners and extension educators to know what the educational needs of Strawberry growers are, what types of professional skills training they have received in the past, and determine effective social and extension factors involved in the educational needs of Strawberry growers.

## **MATERIALS AND METHODS**

The major purpose of this study was to assess the educational needs of Strawberry growers in the Kurdistan Province. The specific objectives of the study were to:

- Determine the personal characteristics of Strawberry growers in the province,
- Identify the educational needs of Strawberry growers, and
- Examine the relationship between Strawberry grower's characteristics and their educational needs.

### ***Methods:***

The research design for this study employed descriptive and analytical methods. The target population included Strawberry growers in the Kurdistan Province of Iran . By multi-stage cluster sampling technique, 185 Strawberry growers were selected.

A questionnaire was developed from a review of literature and observation of the main activities of Strawberry growers. The questionnaire included both open-end and fixed-choice questions. Open-end questions were used to gather information not covered by the fixed-choice questions, and to encourage participant to provide feedback. Face and content validity of the instrument were established using an expert panel, which consisted of faculty in the Department of Agricultural and Extension Education of Islamic Azad university and extension officers in the Ministry of Jihad Agriculture. A pilot study was conducted with 25 Strawberry growers in five townships that were not included in the sample population to determine the reliability of the questionnaire for the study.

The dependent variable in the study was level of educational needs of Strawberry growers and included the levels of educational needs. A Cronbach's alpha reliability coefficient of 81.0% was calculated for the level of educational needs of Strawberry growers. The statistical analysis utilized the Mann-Whitney test, Kruskal-Wallis test, Kendall Tau test and multivariate linear regression.

### ***Findings:***

The findings for each objective are presented in this section in the order that they appeared in the purpose and objectives section, and will be discussed as follows:

#### ***Objective One: Personal characteristics of Strawberry growers:***

The mean age of Strawberry growers in the province was 40 years. The mean farm size of the respondents was 0.83 ha. An annual average income of farmers was 9/104/320 Rials from farming . More than 35 % of the respondents had an elementary education, 10% secondary and 16% post-secondary or higher (Table 1).

#### ***Objective Two: Educational needs of Strawberry growers:***

The top five priority educational needs of Strawberry growers were identifying best variety of strawberry, time and correct method of spraying , methods of combating the diseases and pesticides, preparing lands for cultivation and identifying the diseases of strawberry (Table 2).

#### ***Objective Three: Relationship between Strawberry grower's characteristics and their educational needs:***

The first hypothesis was to test for statistically significant relationship between level of educational needs of Strawberry growers and educational level. At an alpha level of .01, the null hypothesis was rejected and it was concluded that there is a negative relationship between level of education and educational needs of Strawberry growers. The second hypothesis was to test for statistically significant relationship between level of educational needs of Strawberry growers and work experience. At an alpha level of .01, the null hypothesis was rejected and it was concluded that there is a negative relationship between work experience and educational level. The third hypothesis was to test for statistically significant relationship between level of educational needs of Strawberry growers and income. At an alpha level of .01, the null hypothesis was rejected and it was concluded that there is relationship between income and their educational needs. The fourth hypothesis was to test for statistically significant relationship between level of educational needs of Strawberry growers and areas under cultivation. At an alpha level of .05, the null hypothesis was rejected and it was concluded that there is relationship between areas under cultivation and their educational needs. The fifth hypothesis was to test for statistically significant

**Table 1:** Personal Characteristics of strawberry Growers

Variables	Average	Minimum	Maximum
Age (Year)	40	17	75
Education (year)	6.92	0	14
Work Experience (year)	10.50	1	38
Areas Under Cultivation (ha)	0.83	0.10	2.50
Income (Rials)	9,104,320	500000	28000000

**Table 2:** Means and Standard deviations for Educational Needs of Strawberry growers.

Topic	Mean	Std.Dev	Rank
identifying best variety of strawberry	4.07	0.88	1
time and correct method of spraying	3.99	1.26	2
methods of combating the diseases and pesticides	3.90	1.23	3
preparing lands for cultivation	3.88	1.30	4
identifying the diseases of strawberry	3.87	1.27	5
Correct method of irrigation	3.85	1.14	6
Correct methods of applying fertilizers	3.73	1.22	7
Correct method of packaging	3.59	1.41	8

Very Little 2. Little, 3. Medium, 4. High, 5. Very High

**Table 3:** Means and Standard Deviations for the quality of educational Classes

Topic	Mean	Std.Dev	Rank
Harvesting	3.68	1.29	1
Packaging	3.44	1.25	2
Marketing and Selling	3.33	1.21	3

**Table 4:** Multivariate Regression Analysis (Educational Needs as Dependent variable).

	B	Beta	T	Sig.
Constant	5.55	-----	45.467	0.000
Quality of educational Classes	-0.334	-0.47	7.961	0.000
Visit to Sample Farm	-0.337	-0.38	6.313	0.000

R<sup>2</sup>= .32

relationship between level of educational needs of Strawberry growers and quality of classes. At an alpha level of .05, the null hypothesis was rejected and it was concluded that there is negative relationship between quality of educational classes and their educational needs. The sixth hypothesis was to test for statistically significant relationship between level of educational needs of Strawberry growers and visits to sample farms. At an alpha level of .01, the null hypothesis was rejected and it was concluded that there is negative relationship between visits to sample farms and their educational needs.

Independent variables with interval data or were coded by interval data, were used for a multivariate linear regression analysis (Table 4). The regression analysis shows variables that were statistically significant. The result indicates that 32 % (R<sup>2</sup>= .32) Of the variance in the Strawberry grower's educational needs could be explained by quality of educational classes and visit to sample farms.

**Conclusion:**

The findings of the study provide ample evidence for government and rural development specialists to propose a wide range of educational offerings that can help develop the knowledge and skill of Strawberry growers in the Kurdistan Province.

Based on the findings of this study, the following conclusion and recommendations were drawn:

Due to the low literacy rate of respondents, training materials, methods and educational content must be simple, useful and appropriate for Strawberry grower's mental and physical abilities.

The results also showed that one of the reasons by strawberry growers for not attending the classes was inappropriate time, place and content of subjects. In this regard, it is recommended the classes will be held in a time and place appropriate for farmers.

Based on the findings of the study, it is highly recommended that visits to sample farm has to be a part of routine training of farmers

**REFERENCES**

Scarvia, A., S. Ball and T. Murphy, 1975. *Encyclopedia of Educational Evaluation*, Jossey-Bass, San Francisco.

Shokrollah A. Zadeh, 2005. to examine the educational Needs of Cucumber Farmers in City of Garmsar, Master Thesis, Science and Research Branch, Islamic Azad University.

- Witkin, B.R., 1984. Assessing needs in educational and social programs, Jossey-Bass, San Francisco.
- McCoy, C.P., 1993. Adapted from managing a small HRD department, McCoy Training and Development Resources, ME.
- Grant, J., 2002. Learning Needs Assessment: Assessing the need, <http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pmcentrez&artid=64520#N0x82523d0.0x829e208>.
- Burton, J.K. and P.F. Merrill, 1977. Needs assessment: Goals, needs and priorities, in: Instructional Design, L.J. Briggs, ed., Englewood Cliffs, New Jersey.
- Nasri, S., 2005. To Examine the Educational Needs of Tobacco Growers in Province of Kurdistan, Master Thesis, Science and Research Branch, Islamic Azad University.
- Tabatabaee V., 2003. Far, *to examine the educational Needs of Cotton Growers in City of Garmsar*, Master Thesis, Science and Research Branch, Islamic Azad University.
- Borg, W.R. and M.D. Gall, 1983. Educational research (4<sup>th</sup> Ed.), Longman, New York.