

# The Role of Social Factors in Production of Canola in Qazvin Province

S. J. F. Hosseini<sup>1\*</sup>; H. Haji Maleki<sup>1</sup>

*1: Department of Agricultural Management, Abhar Branch, Islamic Azad University, Abhar, Iran*

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## **ABSTRACT**

Canola producers in the Province of Qazvin were surveyed in order to explore their perception about technical skills influencing the production of canola. Based on the perception of respondents, the results showed that the contact with agricultural service centers would encourage farmers to produce canola. The results showed that there were relationship between perception of respondents about canola production and working experience in canola production, areas under cultivation of canola and social factors as independent variables.

**Keywords:** Canola; Social Skills; Qazvin Province; Farmers.

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\*Corresponding Author Email : jamalfhosseini@srbiau.ac.ir

## INTRODUCTION

Among agricultural products, oil seeds play an essential role in the food basket of population in Iran. The per capita consumption of vegetable oil is 16 kg per year, and country needs more than 1 million tons to fulfill its needs. The canola production capacity of country is about 5 million tons, while the current production is only 190 thousand (Negareh, 2008). The average yield of canola in Iran is reported to be 1950 kg per hectare. The highest production level in 2001 was 5,200 ha and this amount was increased to 7,800 kg per hectare by 2010 (Association of Vegetable Oil Producers, 2010).

On the one hand, agriculture deals with climate, soil, land, water, forests and biodiversity through the production of crops and animals. On the other hand, agriculture is related to farmers, rural communities, poverty and other social problems. Especially in developing countries, agriculture always plays more roles than just a way of earning income from farm production. Agriculture is a way of life for people in rural society. The sustainability of agriculture, therefore, affects not only food production and the use of natural resources and environment. It also influences the social welfare of people in the agricultural sector, and in society as a whole (Jitsanguan, 2001).

Homayonifar and Malekdar (2006) found out that factors such as farm size, working experience and attending extension classes were the most important factors in developing the areas under cultivation of canola in Iran.

Onyuma *et al.* (2006) in a research about effectiveness of management in agricultural production in Kenya indicated that establishing incentives, attending educational classes and empowering small scale farmers would improve their managerial skills.

Qazvin province is located in Central western region of Iran and is considered as one of the important areas in agricultural production. More than 400 thousand acres of land in this province is allocated for agricultural production. Based on the latest statistics, the total areas under cultivation of canola in this province were 4200 hectares and more than 5200 tons of canola was produced. However, it is predicated that this amount could be increased five times.

The research question for this study is: what are the perceptions of canola farmers about the role of social aspects in producing canola? The study attempts to identify the personal characteristics of respondents; assess the perception of canola producers about impact of social factors on producing canola in Qazvin province.

## MATERIAL AND METHODS

The methodology used in this study involved a combination of descriptive and quantitative research and included the use of correlation and descriptive analysis as data processing methods. The total population for this study was 918 canola producers in province of Qazvin, and by using Cochran formula, 130 farmers were selected by random sampling method. Data were collected through interview schedules.

A questionnaire was developed which included both open-ended and fixed-choice questions. The final questionnaire was divided into two sections. The first section was designed to gather information about personal characteristics of respondents. The second section was designed to measure the attitudes of respondents about social factors that affect the production of canola. The respondents were asked to indicate their agreements with statements by marking their response on a five point Likert-type scale.

Content and face validity were established by a panel of experts consisting of faculty members at Islamic Azad University and experts in department of Agriculture in Qazvin. A pilot study was conducted with 30 managers who had not been interviewed before the earlier exercise of determining the reliability of the questionnaire for the study. Computed Cronbach's Alpha score was 78.0%, which indicated that the questionnaire was highly reliable.

Dependent variable in the study included the amount of canola increased. The independent variables in this research study were social factors and personal characteristics of respondents. For

measurement of correlation between the independent variables and the dependent variable correlation coefficients have been utilized and include Pearson test of independence.

## RESULTS AND DISCUSSION

The results of descriptive statistics in table 1 indicated that the all respondents were male with average age of 44 years old and majority had not earned a diploma degree. The average production of canola was 2900 kilograms and average area under cultivation of canola was slightly less than 7 hectares.

**Table 1: Personal Characteristics of Respondents**

Statement	Mean
Age/years	Mean=44
Work Experience/Years	Mean=13.1
Educational Level	Under diploma (n=76)
Amount of canola production/kg	Mean=2900
Experience in canola production/years	Mean=4.3
Areas under canola production/hectares	Mean=6.9

In order to finding of the perception of respondents about their attitudes about role of social factors in canola production, they were asked to express their views. Table 2 displays the respondents' means about the five statements. As can be seen the highest mean number refers to contact with agricultural service centers (mean=3.79) and lowest mean number refers to contact with cooperatives (mean=1.64).

**Table 2: Means of Respondents' Views about the role of social factors in production of canola (1=very little; 5=very much).**

Statement	Mean and Standard Deviation	
	Mean	SD
Contact with agricultural service centers	3.79	1.009
Contact with rural Islamic councils	2.63	0.985
Helping people to solve their problems	2.42	1.018
Contact with farmers in other areas	2.65	1.14
Contact with cooperatives	1.64	0.737

Spearman coefficient was employed for measurement of relationships between independent variables and dependent variable. Table 3 showed that there were relationship between perception of respondents about canola production and working experience in canola production, areas under cultivation of canola and social factors as independent variables.

**Table 3: Correlation measures between independent variables and increasing canola**

Independent variables	Dependent variable	R	P
Age	Increasing production of canola	0.120	0.182
Working experience in agriculture	Increasing production of canola	0.138	0.126
Working experience in canola	Increasing production of canola	0.308**	0.000
Areas under cultivation of canola	Increasing production of canola	0.353**	0.000
Social factors	Increasing production of canola	0.285**	0.000

\*\*p<0.01.

## CONCLUSION

The canola producers in the Qazvin province were asked to express their opinions about the role of social factors in producing canola. The results demonstrated that opinions and attitudes of respondents about social factors related to production of canola.

As the results of study showed, there was relationship between perception of respondents about canola production and working experience in canola production, areas under cultivation of canola and social factors as independent variables. This result is in accordance with findings of research by Shahroodi (2006) and Upadhyay *et al.* (2004).

There is a need for more information about benefits of canola production. It is also important to develop policies that benefit canola farmers and attend their technological needs. In this regard, strengthening the linkage between extension institutions and farmers to consider their role in developing appropriate technology would accelerate the adoption of technical skills by farmers.

The results showed that government should explore ways to increase the participation of farmers in planning, implementing and evaluating programs related to canola production. This could speed up and encourage the production of canola and could facilitate the exchange of ideas among various stakeholders.

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