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MANAGEMENT OF PRODUCTION AND DISTRIBUTION OF ORGANIC PRODUCTS. THE CASE OF ORGANIC FARM MANAGERS AND DISTRIBUTORS IN ATHENS' ORGANIC OPEN FARMERS' MARKETS

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Abstract

Agriculture is one of the main axis of our national economy, but it can get further improvement not only in environmental level but also for the human resources who consist it. The main purpose of this study was to examine the behavior of organic farms managers. Specifically producers' demographics were investigated through a questionnaire. The results of this study indicates that the majority (87.76%) of the organic farmer managers are male. As for the educational level, the majority of farmers were high school graduates and their age comes close to an average of approximately 43 years old. Furthermore the main source of income (83.67%) for organic farm managers proves to be agriculture. In addition we examine the farmers' opinion on the necessity of subsidies and potential obstacles acquiring organic certification. The recorded percent of the organic farmers responded positively to the necessity of the subsidies is 42.9%. The study also presents the main given products in organic open farmers' markets and the cultivation characteristics such as land, fertilization and distribution of the cultivated products. The majority of the products that sold in organic open markets are vegetables followed by olive oil and legumes. An important feature of this study, also linked to the attempt to convert the current mode of production into a closed farm management system, corresponds to the percentage of organic farm managers who rear farm animals in an organic way as well (32.65%).

Key words*: Distribution, Greece, Organic Agriculture, Organic open farmers' markets, Closed farm management system.*

INTRODUCTION

Throughout the world, a genuine concern exists over the increased use of chemicals in conventional agriculture, due to environmental pollution and public health problems for both producers and consumers (Rigby et al., 2001).

In several countries, programs have been developed to reduce the use of pesticides, fertilizers and other chemicals in order to make agriculture more environmentally friendly and sustainable for the future (Edward et al., 1989). Towards this direction organic farming emphasizes on a sustainable agro-ecosystem management that uses the locally- derived renewable resources to solve many key problems related to conventional agriculture in modern societies (Lampkin et al., 1997).

In Greece more and more farm managers convert their cultivating methods to organic, taking into consideration the environmental protection, their own health and the constantly increasing consumers' demand on organically cultivated products (Krystallis et al., 2006).

Therefore it is observed that an ongoing growing number of young-highly educated group of people turns to organic farming (Aggelopoulos et al., 2010) and distribute their products to organic open farmers' markets. In this way they manage to sell their products in higher prices than conventional ones.

Advanced prices combined with subsidies can offer to organic farm managers' a satisfying benefit.

We conclude that organic farming creates more job opportunities either for members of the family or for employed personnel. All above attempt to approach the profile of the human resources involved in the organic agriculture sector in Greece.

MATERIALS AND METHODS

Data were collected by personal interviews in organic farmers' markets in the city of Athens, by completing questionnaires from November 10, 2013 to January 20, 2014.
Quantitative research was used to describe the collected data of a population related to the studied subject, using quantification methods and statistical analysis in interpreting the results.
The total number of questionnaires obtained is 49. It has to be noted that the questionnaire consisted of open and closed type questions, while the method followed was personal interview.

RESULTS AND DISCUSSIONS

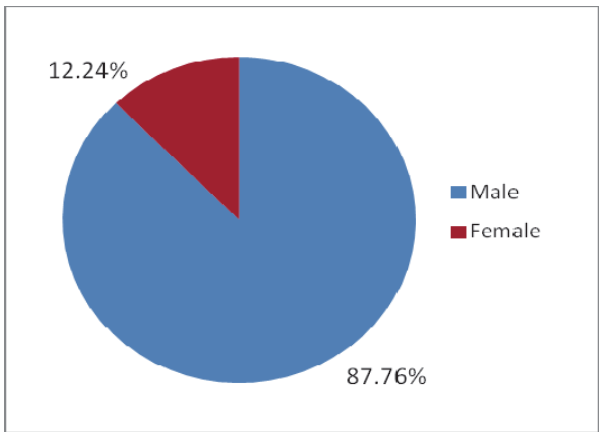

Figure 1. Organic Farmers' Sex
Source: Own Calculation

The results of this study indicate, that the majority of the organic farmer managers are male (Figure 1). Traditionally Greek women don't usually choose this profession (Gidarakou et al., 2007) but they occasionally help the cultivation process as members of the family in parallel with either another profession or housekeeping.
As for the educational level (Figure 2), the majority of farmers were high school graduates. It is noteworthy that the percentage of compulsory education graduates is zero. Another striking set of statistics relate to educational level is that approximately 34.7% of the respondents, hold a degree from a Technological Institute, University or a Master degree.

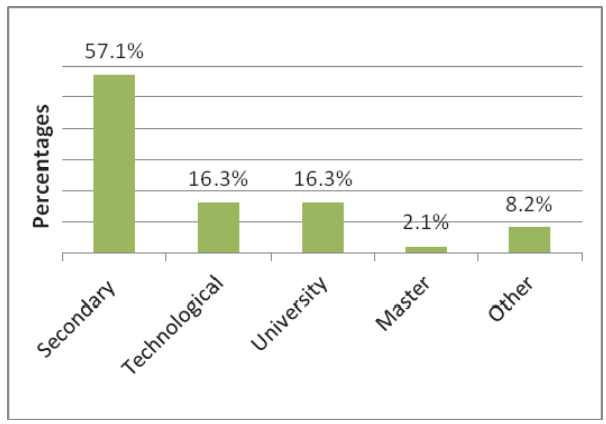

Figure 2. Educational Level
Source: Own Calculation

This indicates the tendency that although farmers hold a degree in different specialties (Bryden et al., 2011), they have consciously chosen this profession, mainly because of the high rates of unemployment and the land occupation.

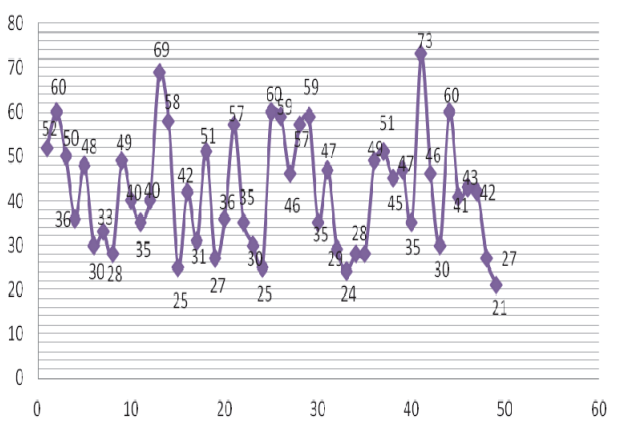

Figure 3. Age of the respondents
Source: Own Calculation

In Figure 3 it is shown that the farmers' age was within a wide range (from 21 to 73 years old), with an average of approximately 43 years old.
This noticeable feature shows that the age of the people involved in the agricultural sector in Greece remains high but with a declining trend compared to the past (Lampkin et al., 1997).
The main source of income for organic farmer managers is agriculture (Figure 4). This states that apart from the main source of income, farming is a professional choice and not an additional income.

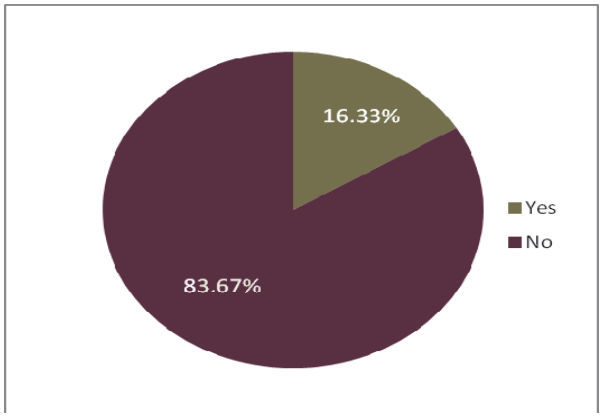

Figure 4. Respondents' Other Income Examination
Source: Own Calculation

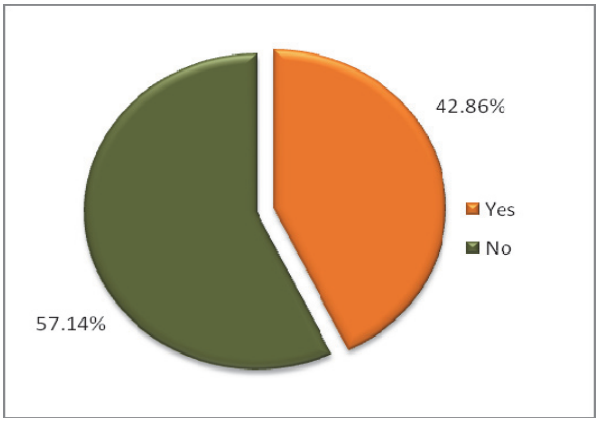

Figure 5. Necessity of subsidies
Source: Own Calculation

As can be seen from the Figure 5, 42.9% of the organic farmers responded positively to the necessity of the subsidies. On the other hand 57.1% of the respondents believe that subsidies are not necessary as the amount of the subsidies is low and there are many delays in the payments.

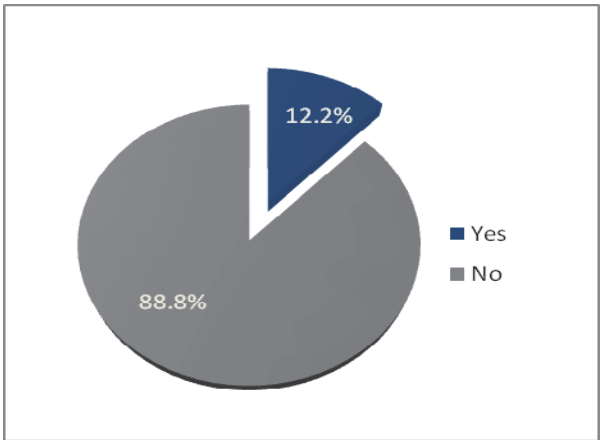

Figure 6. Difficulties in entering to Organic Agriculture Certification Program
Source: Own Calculation

As shown in Figure 6 and as far as the difficulties in certification are concerned, the majority of the respondents state that they didn't face any kind of obstacles. The farmers who faced problems claim that the main obstacles are bureaucracy and delays in issuing their certificates.

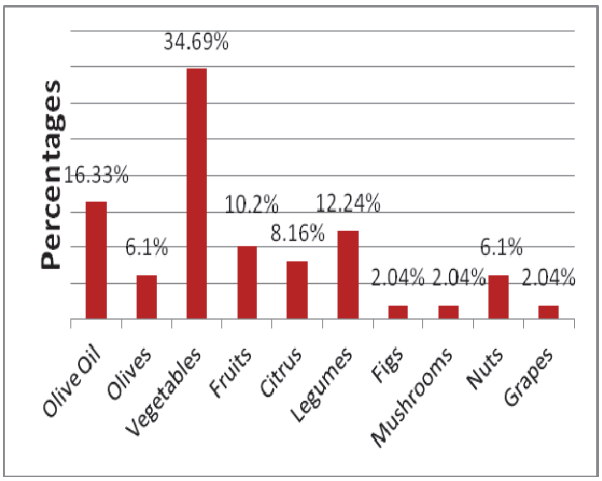

Figure 7. Main Products
Source: Own Calculation

A noticeable feature of the Figure 7, is that the majority of the products that sold in organic open markets are vegetables which are more than twice as many as the next most popular products shown, olive oil and legumes.

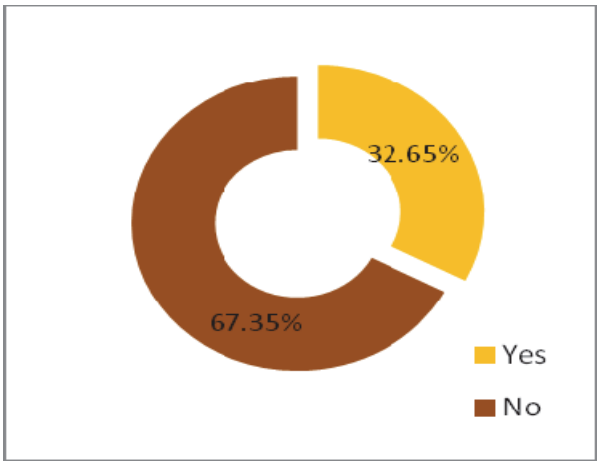

Figure 8. Animal Rearing
Source: Own Calculation

The data provided by the Figure 8, demonstrate that many organic farmer managers (32.65%), rear farming animals. The majority of these farmers made clear that they use the manure produced by their animals in order to fertilize their crops as they are aiming to create a whole close farm management

system (CAC, 2004). Furthermore, by applying these cultivating techniques they manage to reduce the production cost.

Table 1. Crop characteristics, allocation of labor and product distribution

		Tree Crops	Vegetables	Legumes
Farmers		32	27	6
Land (ha)		5.2	7.1	3.7
Labor	Personal or Family	55%	45%	40%
	Employed	45%	55%	60%
Distribution	Open Markets	60%	85%	85%
	Wholesale	40%	15%	15%

Source: Own Calculation

The Table 1 demonstrates that the majority of organic farm managers of the speciment choose to cultivate tree crops, following by vegetables and legumes. On the contrary the highest average land cultivation corresponds to vegetables and the lowest to legumes. Moreover from Table 1, can be seen that the highest level of personal or family labour observed in tree crop cultivation (55%), followed by vegetables (45%) and legumes (40%). Consequently employed labour necessity is higher in legumes than in the other crops. Last but not least producers of all three kind of cultivation distribute the largest amount of their products in organic open farmers' markets and the remaining amount through wholesale.

Table 2. Fertilization characteristics

			Tree Crops	Vegetables	Legumes
Fertilization	Manure	Farmers' Percentage	84.37%	85%	35%
		Average Quantity (kg/ha)	1,630	6,000	2,000
	Compost	Farmers' Percentage	33%	33%	35%
		Average Quantity (kg/ha)	1,122	3,500	2,000
	Organic	Farmers' Percentage	80%	85%	85%
		Average Quantity (kg/ha)	234	1,000	1,000

Source: Own Calculation

As far as the fertilization is concerned (Table 2) the majority of the farm managers, who cultivate tree crops in their farms, use manure and organic preparations. The same tendency in fertilization is observed at the farmers who cultivate vegetables in contrast with the legumes cultivators who use mainly organic preparation instead of compost and manure.

CONCLUSIONS

To conclude the results of this questionnaire rebound to the fact that the majority of the organic farm managers are of male sex. Features from recent researches, were also confirmed by this study, indicating that more and more young producers with high level of education are involved in organic agriculture as the average age of farm managers in the organic sector is slightly dropped. It should be also mentioned that the farm managers used to cultivate more than one crops (olive-citrus, citrus-vegetables etc.) to extend the production and enhance their purchasing power.

Our results revealed that, the majority of the organic products are distributed in organic open markets and most of the farmers use provided preparations in combination with several agronomic practices such as tillage in order to fertilize and protect their crops against pests and pathogens. Moreover under a financial point of view, the prices of organic products are higher than conventional derivatives. In recent years the difference in prices fall significantly, as farmers extent their products' distribution to alternative market channels. As so organic cultivation when it is coupled with subsidies can provide a more profitable income to organic farm managers.

The organic cultivation methods contribute to environmental protection, the rational use of natural resources, reduced energy consumption and improve farmers' and consumers' health. Organic farming creates more job opportunities either for members of the family or for employed personnel. As a result organic agriculture can provide an economical improvement strategy to a national level in order to overcome the current economical crisis. It is also appearing the

attempt to convert the current mode of production into a closed farm management system. Representative of this attempt is the rearing of farm animals also in an organic way.

In Greece the future of organic farming can have an optimistic prospective as long as all the participant members, such as the state, the university community, organic farmers, certification organizations, retailers and consumers can provide an organized and collective action.

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