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Research Article

EVALUATION OF ORGANIC AGRICULTURE IN TERMS OF PRODUCERS: THE CASE OF GIRESUN PROVINCE KEŞAP DISTRICT

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ABSTRACT. In this study, the socio-economic characteristics of the producers engaged in organic farming activities in Giresun province, the general structure of the enterprise and the purpose of its activity, the sources of information, organic product preferences, the marketing situation, and the problems encountered were examined. At the beginning of the organic product production preferences of the participants, hazelnut comes first with 81.00%, followed by vegetable production with 14.8%, and fruit production with 4.8%. The most important source of information for producers (85.7%) is the Ministry of Agriculture and Forestry. It has been determined that the gender of the producers and the purpose of starting organic agriculture and the product grown are related. Although male producers started organic agriculture to earn more income, it was determined that women also started with the aim of growing healthy products and benefiting from organic agriculture support. While male producers frequently produce hazelnuts, it has been determined that women also produce vegetables and fruits along with hazelnuts. The producers participating in the survey emphasized that they do not have an organic market to market their products and that they are offered to the market in the same way as traditional hazelnuts. As a result; Increasing government subsidies and developing various marketing strategies can enable more people to produce and consume organic products.

Keywords: *Organic agriculture, organic producer, Keşap, Giresun*

INTRODUCTION

The increase in the population day by day has brought with it an increase in the need for food. This situation reveals the fact that productivity in agriculture should be increased. To increase productivity in agriculture, pesticides, and chemical fertilizers have been used to start intensively; The use of excessive mechanization has come to the fore. These inputs, which are overused, have polluted the environment and soil and have begun to harm human health [1]. These misapplications, which are human-induced, have caused irreversible damage to the ecosystem. To take precautions against these destructions, the countries of the world have started to put organic agriculture on their agenda [2]. Organic farming; is based on certain production principles such as crop rotation, animal manure, disease and weed control, and biological-mechanical and integrated pest control [3].
Turkey is in a very advantageous position compared to many countries in organic agriculture with its different ecological conditions, fertile and uncontaminated soils yet, rich biodiversity, and rich local varieties. Today, processed products with high added value need to be increased and brought into export [4].

According to the latest data from Organic Agriculture Research Institute, there are currently 646.247 hectares of organic food production area and 79,563 organic food producers in Turkey. In addition to production, there are also organic food products that are exported (75.904.32 tons in 2019) and imported (3880 tons) [5].

Organic farming lands are aimed at less pollution and less soil erosion. Minimizing the damage to the natural environment brings an increase in soil quality. The Black Sea region is a region with a high potential for organic agriculture due to no mechanization and low use of chemical inputs

(fertilizers, pesticides, etc.) in agricultural areas, at the same time the absence of industrial facilities in the region. The area; has a say in agricultural products such as organically produced tea, hazelnut, kiwi, apple, pear, and plum throughout the country [1].

Within the scope of the "DOKAP (Eastern Black Sea Project Regional Development Administration) Region Organic Agriculture Basin Determination Project", organic basin determination processes were carried out in nine provinces. A clustering study was conducted on the production environments and soil requirements of plants with economic value in the region. Within the scope of the evaluation of the plant production potential of the region; Seminars, courses, training, publications, and meetings were organized for producers to expand organic farming, organic mulberry farming, organic hazelnut farming, organic sheep farming, and good agricultural practices [6].

With this study, the general profile and business structure of the producers engaged in organic farming activities in Giresun province were determined, and the business objectives, product preferences, and marketing situations. Encountered of the problems were determined. Solution-oriented suggestions were developed.

MATERIAL AND METHOD

The main material of the study consists of organic producers in Giresun province. Producers are registered to the farmer registration system (PFR) for 2021. Giresun is located between 37, 50, and 39 12 east longitudes and 40 07 and 41 08 north latitudes and is located in the Eastern Black Sea region. Covering 8.5 per thousand of the country's territory, Giresun province has an area of 6934 square kilometers. The city center was established on a peninsula extending toward the sea between Aksu and Batlama valleys.

According to the 2018 census results, the population of the province is 453.912 and is concentrated on the coastline [7].

The questionnaire method was applied in the study, and the questionnaires were conducted in the Keşap district of Giresun province in some villages (Karabulduk, Armutdüzü, Saraycık, Karadere, Gönüllü, Yoliçi, Fındıklı, Kılıçlı, Küçükgeriş, Tepeköy, Çakırlı, Çamlıca, Hisarüstü, Karabedir, Çarıklı, Karakoç) with 21 producers who can be reached It was carried out interactively due to the pandemic.

Survey questions; the general profile of the enterprises, the sources of information and the purpose of activity of the organic agricultural enterprises, the organic product preferences, the marketing situation, and the problems encountered are collected in three groups [8, 9,10,11]. The data obtained from the questionnaires were evaluated with the frequency (frequency analysis) included in the SPSS 23 package program and the relationships between the variables were determined by Chi-square analysis and Crosstabs.

RESULTS AND DISCUSSION

General Profile of Organic Farming Businesses

In the survey of the producers, participating are female 28.60% and 71.40% are male. While 100% of the producers were cultivated on their property, 4.8% stated 0-1 year, 52.3% 1-3 years, and 42.9% 3-5 years as organic farming activity years. All organic producers stated that their profession is farming. The annual average income obtained from organic agriculture was declared as 0-10 000 TL with 9.5%, 10 001-20 000 TL with 33.3%, 20 001-30 000 TL with 28.6%, 30 001 TL and above with 28.6%. While the number of workers employed in the enterprise consists of seasonal workers with

47.6% and family members with 52.4%, no enterprises are declaring that they employ permanent workers. (Table 1).

Table 1. *General profile and structure of organic farming enterprises*

Manufacturer Profile		F (%)
Business owner	Woman	28.60
	Man	71.40
Ownership status of businesses	Lease	0.0
	Own property	100
Organic farming year	0-1 year	4.8
	2-3 year	52.3
	3 -5 year	42.9
	5 year and above	0.0
Occupation of organic business owner	Farmer	100
	Small business	0.0
	Retired	0.0
	Other (Private sector, civil servant etc)	
Average annual income from organic agriculture	0- 10 000 TL	9.5
	10 001-20 000 TL	33.3
	20 001-30 000 TL	28.6
	30 001 TL and above	28.6
Number of workers working in enterprises	permanent worker	0.0
	Seasonal worker	47.6
	Family members	52.4

According to Acıbuca et al. [12] In the survey, 51 of the 52 farmers are male and 1 is female. He stated that this situation is because the patriarchal family structure is dominant in general, the businesses are managed by the man, who is accepted as the head of the family, and the women generally do not get a share from the agricultural lands or receive less in inheritance sharing. Sıray [13] stated that the amount of land used for rent or shared ownership in the enterprises he examined was very low. Tan et al. [14] as a result of their survey; determined that 60% of them have been in the agricultural business for more than 30 years, 32% of them in the range of 20-30 years, and 8% of them less than 20 years. According to these results, 60% of the producers have been in the agricultural business for more than 30 years, that is; reveals the conclusion that agriculture in the region was maintained as an ancestral profession. Acıbuca et al. [12] as a result of the survey; When the annual agricultural incomes of the producers are examined, 50% of them are less than 10 000 TL per year from agricultural work, 25% are between 10 000-20 000 TL, 19.2% are between 20 000-30 000 TL and 5.8% of them make a profit of around 30 000-40 000 TL. The low income of the producers reduces their interest in organic production. Sıray and Akçay [13] declared according to the results of their studies; in the factors they examined, 60.72% of the workforce is covered by family members, 39.28% by external workforce supply, and this declare is in line with the results of our study. It is noteworthy that the land size of all enterprises participating in the survey is equal to the size of the organic farming land (Figure 1,2). From this, it is understood that the enterprises engaged in organic farming are engaged in organic farming in all of their lands. Karabaş and Gürler [15] organic agriculture producers have total land assets of 39.38 decares; stated that the part of certified organic agricultural land is 33.46 decares.

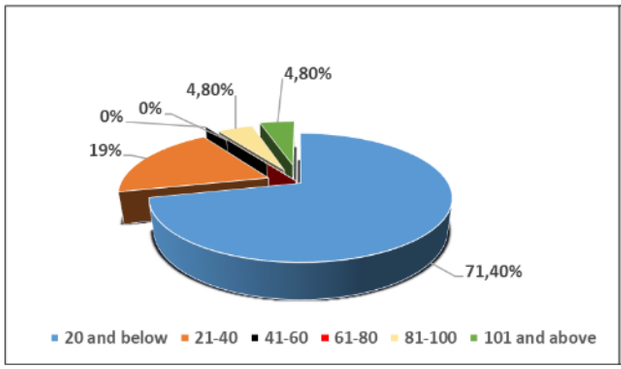


Fig. 1. *Land size of the enterprise*

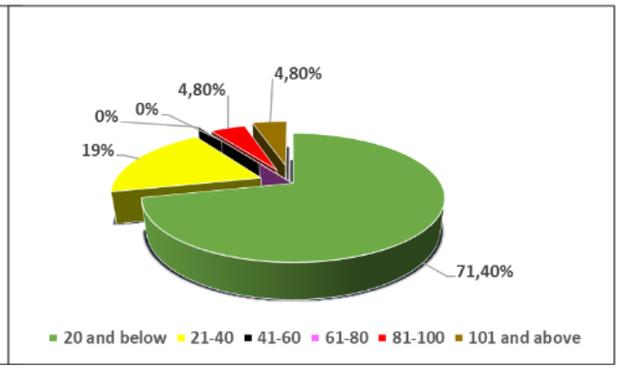


Fig. 2. *Organic farming land size of the enterprise*

Sources of Information and Purpose of Organic Farming Enterprises

When the information sources of the producers participating in the survey were evaluated, 14.3% stated that they were on recommendation and 85.7% stated that they were from the Ministry of Agriculture and Forestry (Table 2). The participants of 100% stated that they received information support from the provincial and district directorates of Agriculture. Torun [16] states that since one of the most important sources of producer information is public extension organizations, extension staff of public institutions and organizations provide information flow to tea producers. Ozdemir et al. [17] stated that the Ministry of Agriculture and Forestry Provincial/District Agriculture and Forestry Directorates are at the key point in terms of implementing official procedures and presenting the information needed by the producer.

Table 2. *Information source and supports of organic farming enterprises*

Information source and Supports of their enterprise		F (%)
Information resources of organic farming enterprises	on recommendation	14.3
	through the Ministry of Agriculture and Forestry	85.7
	Radio/TV/Internet	0.0
Information support of organic farming	Control and certification bodies	0.0
	Provincial and district directorates of agriculture	100
	Other Manufacturers, friends	0.0

It has been determined that the aim of the producers participating in the survey to start organic farming is 61.6% to earn more income, 23.8% to benefit from organic farming supports, 10.3% to grow healthy products, 4.3% to be beneficial to the people of the city (Figure 3).

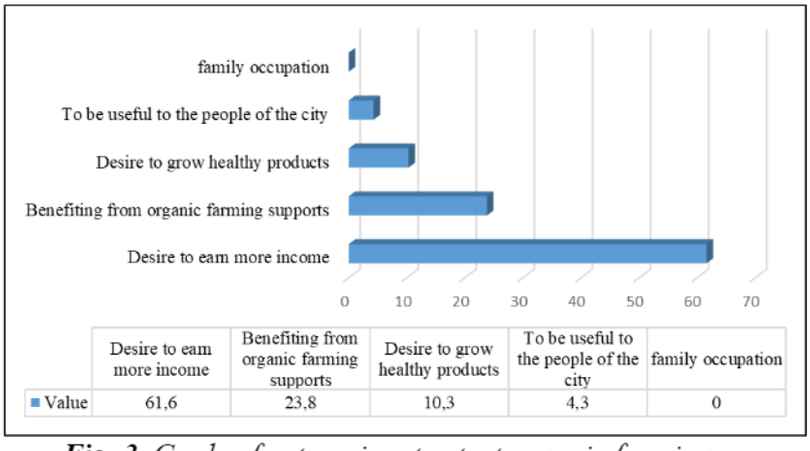


Fig. 3. *Goals of enterprises to start organic farming*

Karabas et al. [15] determined that the support and incentives given to organic farming practices were effective at a rate of 34.5% for the producers to start organic farming. Following this, they determined that the environmental and health awareness with a rate of 23.6% and the observation factors of a high-profit margin with a rate of 22.7% were effective in the transition of producers to organic agriculture. Fidan [18] stated that the reason 45.3% of producers to start organic production is to grow healthy products, and stated that this is an indication that the producers attach importance to growing healthy products. Tan et al. [14] stated that; the producers received information about incentives. They took the information in 46% of come from agricultural consultants, 13% from the local governments, 12% from the producer organizations, 11% from contracted companies, and 6% from the Provincial Directorate of Food, Agriculture, and Livestock In the district of Seferihisar, İzmir. On the other hand, when the relationship between the general profile of the producers and the aims of starting organic farming was evaluated according to the chi-square test, $p \leq 0.05$ was determined. It has been determined that there is a relationship between the aims of the producers to start organic farming and gender.

According to this, while it is seen that the aim of the male producers to start organic farming is the desire to earn more income, It has been determined that the aim of women producers to start organic agriculture is to grow healthy products with the desire to earn income and to benefit from organic agriculture support (Table 3). On the other hand, it has been observed that the purpose of the producers to start organic farming is not related to the profession of the organic business owner, the average annual income obtained from organic farming and the number of workers working in the businesses.

Table 3. *Chi-square test results between gender and the aim of starting organic farming*

Gender	N	χ^2	P
Woman	6	8000	0.018**
Man	15		

*p ≤ 0,05 **p ≤ 0.01 specified as.

Organic product preferences of organic farming enterprises, marketing situation, and problems encountered

It has been observed that hazelnut comes first with 81.00% of the organic product preferences of the participants. This was followed by vegetable production with 14.8% and fruit production with 4.8% (Figure 4). It was determined that organic dried beans constitute the majority of the vegetable production of the participants, while organic dried nuts constitute the fruit ratio.

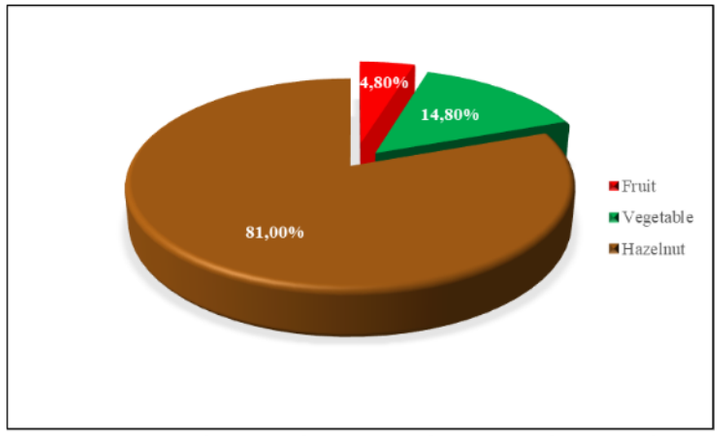


Fig. 4. *Organic product preferences of organic farming businesses*

Ozturk et al. [1] state that organic hazelnut production in Turkey started in the 1989-1990 production period in line with the demand of foreign companies and has increased over the years. However, the participants stated that the number of producers has decreased in recent years, and this is due to the decrease in government subsidies for organic products. Regarding the marketing status of organic products; 100% of the participants declared that there is no market, especially that the hazelnut is given to the same trader as the traditionally produced hazelnut. Korkmazyürek [19] stated that the organic agriculture market in Turkey cannot develop as fast as the world organic markets, he stated that the most important reasons for this are the lack of marketing strategies and the insufficient development of export products. Acarsoy Bilgin et al. [20] current market conditions do not provide an income advantage for producers to turn to organic agriculture. Increasing existing support and arranging continuous extension studies are the most important factors that can enable the producers in the region to turn to organic agriculture, It is stated that the high level of financial support to organic producers has a significant impact on the development of organic agriculture in European countries. Ayla and Altıntaş [21] state that the development of incentive policies by the state can play an important role in the development of the organic agriculture sector, as well as in the evaluation of market opportunities in the domestic and foreign markets.

In our survey study, the relationship between the general profile of the producers and the grown organic product was evaluated by chi-square analysis, and since $p \leq 0.01$ it was determined that gender was related to the product grown (Table 4). That is, almost all of the male producers participating in the survey stated that they only produce hazelnuts, while female producers said that they also produce vegetables and fruits in addition to hazelnut production.

Table 4. *Chi-square test results between gender and crop grown*

Gender	N	χ^2	P
Woman	6	21.714	0.000**
Man	15		

*p ≤ 0,05 **p ≤ 0,01 specified as.

On the other hand, it was observed that the crop grown with the size of the land were also important at the $p \leq 0.01$ level (Table 5). Accordingly, while the producers with 20 decare or less land grow vegetables and fruits besides hazelnuts, it has been determined that the producers only grow hazelnuts on their lands as the size of the land increases. The reason for this situation is that the single product reduces the workload and it is easier to market.

Table 5. *Chi-square test results between land size and crop grown*

Land Size (decare)	N	χ^2	P
20 and below	15	21.714	0.000**
21-40	4		
81-100	1		
101 and above	1		

*p ≤ 0.05 **p ≤ 0.01 specified as.

CONCLUSION

The main material of the study consists of organic producers in Giresun province. Producers are registered to the farmer registration system (PFR) for 2021. In the study, the survey method was applied and the surveys were carried out with 21 producers. The producers participating in

the survey are 28.60% of female and 71.40% male. Although organic production attracts the attention of women, it has been determined that the rate of male producers is still high. All organic producers stated that their profession is farming. It is seen that the annual average income from organic agriculture is generally below 30 000 TL and only 28.6% declared it as 30 001 TL and above. The low level of income can be attributed to the fact that 71.4% of the organic farming land sizes are below 20 decares. In the small area working of the organic producer is one of the factors limiting the agreement with chain markets, continuous product delivery and gradual planting. It has been determined that the producers participating in the survey mostly receive information from the Ministry of Agriculture and Forestry. It was determined that the aim of the producers participating in the survey to start organic farming was 61.9% to earn more income and 23.8% to benefit from organic farming supports. According to this result; By increasing the support, more people can make organic products, so the grocery chain can buy products from the region, and the producer can achieve the desire to earn more income. When the relationship between the general profile of the producers and their purpose of starting organic farming was evaluated according to the chi-square test, it was determined that there was a relationship between the goals of the producers to start organic farming and gender. According to this, while it is seen that the aim of starting organic farming for male producers is the desire to earn more income, it is determined that the aim of female producers to start organic farming is to grow healthy products and benefit from organic farming supports. According to this result; Increasing the support shows that it will be an incentive for women producers to start production. It has been observed that hazelnut comes first with 81.00% of the organic product preferences of the participants. This was followed by vegetable production with 14.8% and fruit production with 4.8%. They stated that while organic dry beans constitute the majority of the vegetable production of the participants, organic blueberry is the fruit rate. If the number and area of organic producers in the region can be increased with the above-mentioned issues, organic blueberry production can be increased in addition to the region's organic fresh and dried beans, and they can be sold through markets and over the internet. Regarding the marketing status of organic products; 100% of the participants declared that there is no market, especially that the hazelnut is given to the same trader as the traditionally produced hazelnut. In addition to increasing the number and areas of organic producers, the establishment of producer associations and the active use of internet sales in organic product sales will enable them to solve their marketing problems.

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