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# PROFILE OF ORGANIC FOOD CONSUMERS IN BULGARIA

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## ABSTRACT

**Introduction:** The growing interest in organic products raises the question of who buys organic foods. The existing literature reveals the role of some sociodemographic factors (age, income).

**Aim:** The aim of this article is to study the demographic and socioeconomic characteristics of organic food consumers.

**Materials and Methods:** From November 2020–April 2021, 150 consumers from Dobrich district were interviewed about their awareness and attitude to buy organic foods.

The results of the study were statistically processed using Jamovi, version 2.2.5. The criterion  $\chi^2$  (Pearson's Chi-square) was used, with significance levels  $\alpha = 0.05$  and  $\alpha = 0.1$ .

**Results:** The largest relative share of regular consumers is that of individuals buying organic foods once a week. The analysis of the data shows that the relative share of women in the sample predominates.

A statistically significant difference was found in nine of the tested hypotheses about the differences between men and women. The data show that more often women are the ones who buy food products, incl. organic foods.

**Conclusion:** The profile of the consumers of organic foods is related to gender. The growing trend towards the consumption of organic food in the world, including in Bulgaria, is due to the potential health benefits, to which mostly women have an attitude.

**Keywords:** *demographic characteristics, regular consumers of organic food, health care*

## INTRODUCTION

Current health concerns related to food and concerns due to the use of pesticides, antibiotics and hormones, genetic modification and additives in the food industry are mainly addressed by organic farming and food processing (1).

The most widely accepted definition of 'organic' has been developed and promoted by the International Federation of Organic Farming Movements (IFOAM). The term 'organic' refers to the specific farming system described in IFOAM's core standards for organic farming. Consumers who are interested in issues related to health, the environment, and animal welfare prefer organically produced food (2).

In the EU, organic food production is supported by Regulations (EC) No. 2018/848 (3) and 889/2008/EC (4), with detailed rules on production and labeling and control.

The latest available data on organic farming show that 2019 is another good year for the sector. This is confirmed by the volume of sales, which for

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the EU was 41.4 billion euros and put it in second place in the world in size after the United States (44.7 billion euros) (5). In Bulgaria, sales of organic products amounted to 30 million euros.

The growing interest in this type of product undoubtedly raises the question: Who buys organic food? The existing literature reveals the important role of sociodemographic factors, such as age, gender, education and income, in determining consumer behavior in purchasing organically produced foods (6).

### AIM

The aim of this article is to study the demographic and socioeconomic characteristics of organic food consumers.

### MATERIALS AND METHODS

In the district of Dobrich, Bulgaria, for a six-month period (from November 2020 to April 2021), a study was conducted concerning the awareness and attitude of consumers on buying organically produced food. A total of 150 adults were included on the principle of voluntary and anonymous participation, for which declarations of informed consent have been signed. A questionnaire consisting of 24 questions was attached, some of which were related to the demographic and socio-economic status of the participants such as age, gender, level of education, current employment, self-assessment of the household's financial situation, marital status, number of household members, number of children in the household up to 18 years.

Jamovi, version 2.2.5, was used in the statistical processing of data on demographic and socio-economic variables. Descriptive statistics are presented, and the criterion  $\chi^2$  (Pearson's Chi-square) is applied to test hypotheses. The significance level used in the statistical tests is  $\alpha = 0.05$  and  $\alpha = 0.1$ .

### RESULTS

The results of the descriptive statistics obtained in the analysis of the dependent and independent variables that determine the demographic and socioeconomic profile of the respondents are reflected as absolute values and relative shares in the following table (Table 1):

*Table 1. Demographic and socioeconomic profile of the respondents from Dobrich district.*

№	Variable	Number of Respondents (N = 150)	Relative Share (%)
<b>1</b>	<b>Gender</b>		
	Men	52	34.7
	Women	98	65.3
<b>2</b>	<b>Age</b>		
	18–30 years	31	20.7
	31–40 years	22	14.7
	41–50 years	30	20.0
	51–60 years	46	30.6
	61+ years	21	14.0
<b>3</b>	<b>Degree of completed education</b>		
	Secondary	47	31.4
	Bachelor's degree	44	29.3
	Master's degree	59	39.3
<b>4</b>	<b>Marital status</b>		
	Unmarried	24	16.0
	Married or living with a partner	113	75.3
	Divorced or separated	9	6.0
	Widow/widower	4	2.7
<b>5</b>	<b>Description of the financial situation of the household</b>		
	We don't even have enough money for food	1	0.7
	We have enough money for food, but we still have difficulties	49	32.7
	We have enough money for food and clothes, we can save	75	50.0
	We can afford to buy expensive things	15	10.0
	We can afford to buy whatever we want	10	6.7

6	Professional employment		
	Working in the private sector	68	48.3
	Working in the public sector	47	31.3
	Farmer or fisherman	1	0.7
	Private entrepreneur or businessman	7	4.7
	Unemployed	4	2.7
	Retired	15	10
	Student (school/university)	8	5.3

The survey was dominated by female respondents—65.3%. The distribution of participants by age was in five categories, with the highest relative share being that of respondents aged 51–60 years—30.6%, followed by the share of the age group of 18–30 years—20.7% of the sample. The representatives of the categories 31–40 years, 41–50 years, and over 61 years were 14.7%, 20%, and 14%, respectively. According to the level of completed education, the study included: 47 persons with secondary education, 44 with Bachelor's degree, and 59 with a Master's. The predominant share of respondents by marital status were those married or living with a partner—75.3%. The financial situation of the households participating in the survey was reflected in the following descriptions, namely: money is not enough even for food—1, money is enough for food, but we still have difficulties—49, money is enough for food and clothing, we can save—75, we can afford to buy expensive things—15, we can afford to buy whatever we want—10. The profile of the respondents was diverse according to their main occupation at the time of data collection. Sixty-eight of them work in the private sector, respectively, 47 are engaged in the public sector, 1 is a farmer, 7 are private entrepreneurs or businessmen, 4 are unemployed, 15 are retired, and 8 are students.

The distribution of data on the number of persons in the household established that the highest relative share was that of households with 3 persons (34%), followed by those with 2 persons (31.3%) and households with 4 persons (22%). Households of

only 1 person are less represented—6.7%, as well as more numerous households of 5 people—3.3%, 6 people—2%, or 7 people—0.7%.

A significant part of the households do not have children under 18 years of age (64%), and with one or two children under 18 years of age, respectively 24.7% and 11.3% of them.

The criterion for the frequency of purchasing organic food allows us to conditionally classify consumers as regular and random. The regular ones include those who buy daily and once a week, and the occasional ones, respectively, those who buy from one to three times a month, at least once a year, and less often than once a year. The results of the study on the frequency of purchasing organic food from consumers in Dobrich district is presented on Fig. 1.

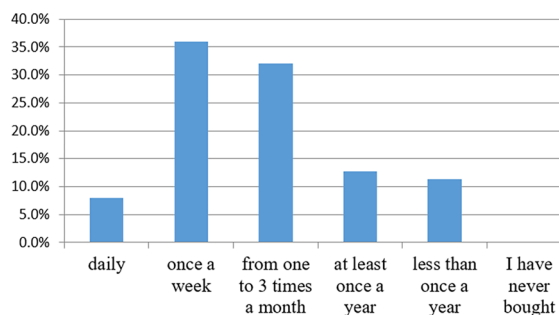


Fig. 1. Relative share of the frequency of purchasing organic food from consumers in Dobrich district.

As can be seen from the chart, the largest is the relative share of those who buy organic food once a week—36%. The research analysis showed that the relative share of women in the sample was 68.5%. Their marital status was as follows, 14.8% were unmarried, 81.5% were married or living with a partner, the remaining 3.7% were divorced and widowed. The households in which the respondents lived were mainly composed of 2 (27.8%), 3 (38.9%), and 4 (22.2%) people, without children (46.3%), with one child (37.0%), and with two children under 18 years (16.7%). There were insignificant differences in the distribution by age categories of regularly buying organic food: 18–30 years—24.32%, 31–40 years—18.92%, 41–50 years—24.32%, 51–60 years—27.03%, and over 60 years—5.41%. The respondents had diplomas for secondary—24.1%,

and higher education—Bachelor’s (25.9%), Master’s (50.0%), as their current professional employment was working in the private sector—50.0%, working in the public sector—35.2%, private entrepreneurs—5.6%, retired—3.7%, and students—5.6%. The financial situation indicated by the respondents was in the groups: we have enough money for food, but we still have difficulties—22.2%; our money is enough for food and clothing, we can save—59.3%; we can afford to buy expensive things—11.1%; and we can afford to buy whatever we want—7.4%.

A cross-tabulation method was used to establish the relationships between dependent variables in the studied men and women. Dependent variables such as: associating the concept of organic food with food that is good for health have been tested; I usually get information about organic food from internet portals or specialized websites; I buy organic food every day; I buy organic food once a week; I buy organic food because I believe it is healthy for me and my family; the most important reason for me to buy organic food is the positive impact on health; lower prices would encourage me to buy more organic food; buy

organic food for the whole family; I most often buy organic food from supermarkets; I most often buy organic food from organic and diet food stores; I buy organic food because I believe it is of high quality; recognize organic food by looking for information on the packaging that the food is certified as organic; having a health problem would encourage me to buy organic food more often; better presentation of these products in supermarkets and other food stores would encourage me to buy more organic food; the symbol for organic food produced in the EU is the European Leaf, which depicts the stars symbolizing the EU in the form of a leaf on a green background; I am aware that foods that are labeled as organic are based on an official mark on the packaging; in case of suspicion that a food offered as organic is not such, a signal is submitted to the Ministry of Agriculture and Food.

When testing a total of 17 hypotheses for the differences in the relative shares between men and women who gave a positive answer, a statistically significant difference was found in nine of them (Table 2).

Table 2. Results of tested hypotheses in male and female respondents from Dobrich district.

Hypothesis	Rel. Share of Men with a Positive Answer (%)	Rel. Share of Women with a Positive Answer (%)	Difference %	Pearson’s Chi-Square	P Level of Significance
I associate the concept of organic food with food that is good for health	57.7	58.2	0.5	0.003	0.9531
I buy organic food because I believe it is of high quality	19.2	42.9	23.7	8.37	0.004*
I usually get information about organic food from Internet portals or specialized websites	46.2	69.4	23.2	7.661	0.0056*
I buy organic food every day	7.7	8.2	0.5	0.011	0.9149
I recognize organic food by looking for information on the packaging that the food is certified as organic	32.7	50	17.3	4.13	0.042*
Having a health problem would encourage me to buy organic food more often	7.7	26.5	18.8	7.54	0.006*
Better presentation of these products in supermarkets and other food stores would encourage me to buy more organic food	11.5	25.5	14	4.04	0.044*
The symbol for organic food produced in the EU is the European Leaf, which depicts the stars symbolizing the EU in the form of a leaf on a green background	78.8	90.9	12.1	4.21	0.040*

I find that the food that is labeled as organic is based on an official mark on the packaging	63.5	80.6	17.1	5.28	0.022*
In case of suspicion that a food offered as organic is not such, a signal is submitted to the Ministry of Agriculture and Food	21.2	38.8	17.6	4.8	0.029*
I buy organic food once a week	32.7	37.8	5.1	0.381	0.5372
I buy organic food because I believe it is healthy for me and my family	69.2	81.6	12.4	2.957	0.0855**
The most important reason for me to buy organic food is the positive impact on health	82.7	80.6	2.1	0.098	0.7542
Lower prices would encourage me to buy organic food more often	50	39.8	10.2	1.430	0.2318
I buy organic food for the whole family	88.5	84.7	3.8	0.405	0.5244
I most often buy organic food from supermarkets	38.5	26.5	12.0	2.286	0.1306
I most often buy organic food from organic and diet food stores	36.5	38.8	2.3	0.076	0.7831

p \* at  $\alpha = 0.05$  and p \*\* at  $\alpha = 0.1$

## DISCUSSION

Statistics show that the group of all surveyed consumers of organic food, as well as the group of those who regularly buy organic food, usually consists of women. The results are in line with the findings of other authors, such as Bellows et al. (7), Zander et al. (8), and Pearson et al. (8).

The participants in the study received information about organic foods mainly from Internet portals or specialized websites, and testing the hypothesis of differences between the sexes found statically significant differences in this dependent variable. At the same time, the search for information on the topic shows that the respondents are worried about what they are buying.

The existence of significant gender differences in the purchase of organic food from consumers is also supported by past studies (10). According to Shin et al. (11), gender influences the choice of organic food depending on the health consciousness of individuals, which is confirmed by our results ( $p = 0.0855 < \alpha = 0.1$ ). Greater concern for women's personal and family health is an important motive for buying organic food (12).

## CONCLUSION

The profile of the organic consumer is influenced by the role of women who are involved in

the increasing interest in organic foods around the world, including in Bulgaria, due to the assumption of their health benefits. Women are not only concerned about themselves and the health of all family members, seeking special information on the subject, they apply it using objective criteria to distinguish organic from traditionally produced food.

The results concerning demographic and socioeconomic characteristics need further analysis in order to verify and take into account new gender differences.

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## CONFLICT OF INTEREST:

The authors declare no conflict of interest.

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