

Consumer Attitude to Organic Food Consumption in Serbia

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Abstract

High agricultural production affects soil fertility, and pollutes environment thus causing pollution of agricultural-food products. Therefore, increasing number of consumers are turning to organic agricultural and food products. Organic food relates to food that was not treated with pesticides, herbicides and other synthetic chemical substances during its production, processing and storage. Organic food does not contain genetically modified materials, with the purpose of reaching a sustainable system of agriculture. Organic food production emphasizes environment and land protection and preservation.

The main goal of this paper is to identify the factors that determine demand and consumption of these products, i.e. to gain insight in consumers' preferences, motives, attitudes and interest to buy organically produced products in the Republic of Serbia. This paper provides a comparison with the results obtained by researches in other countries. Authors indicate the necessity of extending the assortment for products deriving from organic agriculture and food industry, then continuity in supply and adequate marketing approach. With informed and educated consumers, it might be possible to raise consumption to another level.

Key words: *organic food, consumption, market research, consumer's attitude, Serbia*

JEL Classification: *Q10, Q13, Q19*

Introduction – Importance of Organic Food for Consumers

High conventional type agricultural production affects soil fertility, and pollutes environment thus causing the pollution of agricultural-food products. Therefore, an increasing number of consumers turn to organic agricultural and food products. Organic food relates to the food that was not treated with pesticides, herbicides and other synthetic chemical substances during its production, processing and storage. Organic food does not contain genetically modified materials, with the purpose of reaching sustainable system of agriculture. In livestock breeding, the principles of natural breeding are respected, without the use of chemicals, antibiotics and growth hormones. Organic food production emphasizes environment and land protection and preservation, and organic agriculture is related to the multifunctional agriculture concept.

The consumption of organically produced food is constantly increasing. As the current supply can not satisfy the potential demand on world markets, it might provide the possibility for the developing countries to increase the organic food production in their rural areas with optimal ecological conditions.

According to the USDA Foreign Agricultural Service, in 2009 in Serbia there were 218 certified organic farmers with organic production on approximately 5,000 ha. On the very same area, only 600 ha were certified by the certified agents accredited by the national Ministry of Agriculture. Additional 9,000 ha are still in the period of transition towards organic production (organic production takes only 0.3% of arable land). The pace of extension of the area under organic production enlargement in the last 5 years can be observed through the fact that in 2005 Serbia had only 906 ha and 35 organic producers.

The production in 2009 reached around 30,000 t of organic products, with a market value of 55 million USD. Currently, more than 90% of that production is exported as raw material or processed (more often fruits, followed by vegetables, cereals, mushrooms, medical herbs, etc.) to EU countries (Germany, Belgium, Austria, Switzerland, Great Britain, etc.) and USA market. Likewise Serbia is importing some organic products such as baby food - Germany, organic spaghetti - Slovenia, rice - Macedonia, etc.

In May 2010, the National Parliament passed a new set of laws and amendments in agriculture that will ensure compliance with the international agriculture rules and further harmonization of Serbian agriculture legislative with the EU laws. Among them, a new Law on Organic Production was adopted. Unfortunately in recent years, due to the reduced agriculture budget, the official support for organic farmers is limited (in 2009 total sum of subsidies was only 5 million RSD for certification, education and marketing). As the financial support for the organic producers in EU countries is 600-900 EUR/ha, Serbian producers still can not represent proper competition to the EU farmers. On the other hand, having in mind the popularity and economic importance of the organic products, there are great potentials for growth within this sector of agriculture in Serbia.

Research Goal

The main goal of research presented in this paper is to identify the factors that determine the demand and consumption of organic agricultural and food products, in order to gain insight in consumers' preferences, motives, attitudes and interest to buy organically produced products in the Republic of Serbia. The paper also provides a comparison to the research results obtained in other countries.

Methodology and Data Sources

The questionnaire method was applied in the paper. It was used to obtain facts, opinions, intentions and motives of the examinees. The survey was performed on a simple random sample of 300 examinees on the territory of the cities Novi Sad and Subotica during September-October 2010. Although this is a relatively small sample, the obtained answers could be considered indicative enough and may present the basic factors of organic agro-food products consumption. The research was based on the so-called *field research*, with the use of *closed* (questions with multiple choice answers) and *open* questions (questions that were not given the alternative answers).

Results

Survey of Consumers' Attitudes

Knowledge of the existence of organic food – The obtained answers show that 87% of the respondents are informed about the existence of food produced in the system of organic

agriculture. Alongside 13% of respondents were not informed. The best knowledge is present at younger population and respondents with higher educational level. According to the research of Renko and Bosnjak (2009), in Croatia around 83% of respondents were informed of the existence of organic products. This is slightly lower compared to the results obtained from the survey carried out in Serbia. The conclusion that can be drawn from these facts is that better knowledge could be achieved through constant education of consumers.

Awareness of the importance of organic food consumption - Most of the respondents (74%) think that they are not sufficiently informed about the importance of organically produced food consumption. A small number, 12%, considers they are adequately informed, and 14% of the respondents do not have a defined attitude on the asked question. Better knowledge about the importance and advantages of organic foods consumption may significantly affect demand increase and consumption of these products.

Purchase of organic products - From the questionnaire, it is clear that only 18% of respondents are regular buyers of organic agricultural products. About 28% of them are occasional customers, while 8% of respondents buy only in exceptional circumstances (that is seldom). Less than half of respondents (46%) can not be considered organic products buyers. According to Renko and Bosnjak (2009) research results in Croatia, out of the total number of respondents, 63% said they are buying ecological (organic) food, which is far higher the respondents in Serbia.

In Canada, 74% of respondents are consumers of organic food (2006). In the USA 73% of the families normally purchase organic products. Among them, 32% have started buying organic products in the last two years (new organic families). Experienced organic families (20%) have begun to purchase organic products five years ago, while very experienced families (21%) have begun to purchase more than five years ago (in some cases more than 15 years ago). On the other hand, 27% of total respondents never or seldom buy organic products (2008).

Recognition of organic products on the point of sale - 45% of the respondents think they may recognize organic food products on the point of sale. Higher level of recognition is



characteristic for younger consumers and respondents with higher education level. On the market, the organic products are marked with a legally defined sign. On purchasing products bearing the sign “organic”, consumers may be sure that at least 95% of the ingredients are of organic origin, that the product complies with all inspection regulations that is packed in biodegradable packaging and possesses code and personal data of the inspection body. So, any certified organic product must be marked with the label “organic product” (national label as shown in the picture). Unfortunately, on the market there are

many labels for so-called “health food” that often confuse consumers and slow down the demand growth.

For example, in Macedonia, according to Sekovska (2010), most of the consumers can not recognize the national logo for organic product (45.9%). Just 18.2% of them are familiar with it, but usually they are not quite sure about its meaning, confusing it with the Macedonian logo for quality.

Pros for organic agricultural-food products purchase - More than half of examinees (55%) think that organic products are safe for human alimentation, which represents their main motive for the purchase and consumption. Around 35% of respondents mention quality as the main demand motive for these products. Some consumers, 10%, are motivated by the environment issues, which is among the principles of organic agriculture. Crossing the obtained answers, depending on consumers’ purchase power, it could be seen that health motives are equally important for all consumers. A group of younger respondents (under 35) is more interested in

environmental protection, which can be presented as positive, as environmental protection awareness grows along with the development of organic production methods.

According to the survey conducted by Hallam (2002), the main motives for organic agriculture products purchase in the UK are: health promotion (36%), better food taste (31%), the “*natural*” origin of the food (25%), without genetic modification (12%), and environmental protection (5%) of respondents.

Interesting are the results of the survey conducted in the USA (2010) about the readiness to use services of those restaurants which are preparing meals only with organically produced ingredients. The results show that 80% of the respondents are willing to pay more for a meal in one of these restaurants, as they recognized in them elements of environmental protection, usage of biodegradable materials, recycling and waste reduction.

Cons for organic agro-food products purchase - The majority of the respondents (34%) do not trust the producers, i.e. do not believe that food is produced within the organic system of production. It might be understood regarding the recent boom of the so-called “*Health food*” stores. Other causes of insufficient demand for these products are: high price of products (31%), poor and insufficient supply and on the market (21%), inadequate marketing activities of producers (8%), and other miscellaneous reasons (6%) of the respondents. Among the respondents who do not purchase organic products dominant there are those on lower education and income level. The conclusion is that the income level significantly limits the demand for these products.

The research results of Leifert and Bourlakis (2004) indicates the main reasons for the absence of the demand for organic products in Canada within some groups due to the high prices (53% of respondents) and to the high degree of mistrust in these products (22%). According to Padel and Foster (2005), key issues that relate to the demand for organic products within the European Union are: high retail prices, small availability of ecologic - organic products, lack of information at consumers, strong competition of non-ecological substitutes, lack of credibility in certification etc.

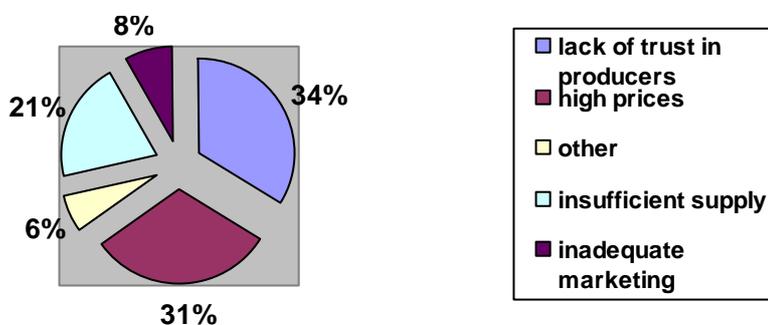


Fig. 1. Reasons for non-buying of organic agro-food products

Structure of demand for organic agro-food products - Most of the examinees (30%) purchase fresh organically produced fruits, followed by fresh and processed vegetables 28%. In other words, fruits and vegetables dominate with 58%. Fruit juices are favored by 18%, cereals by 17% and other products by 7% of respondents. Determination of possible impact of higher income level on the structure of purchased organic products was done using the Chi-square test. Test values ($p > 0.05$) do not indicate any correlation between these two elements.

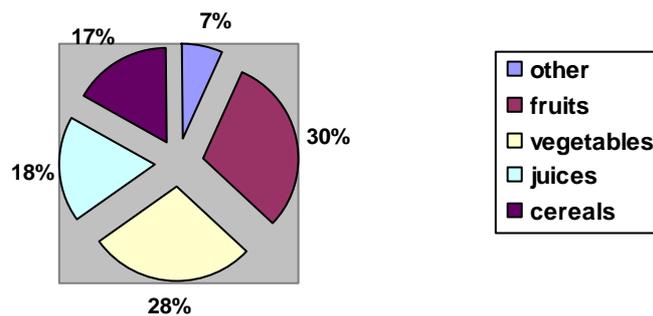


Fig. 2. Structure of demand for organic agro-food products

In Croatia research results by Renko and Bosnjak (2009) suggest that consumers usually buy bread and cereal products (38%), followed by fruits and vegetables (26%), honey (14%), milk and dairy products (9.5%) and fresh and processed meat (9.45%). A different demand structure between products in Serbia and Croatia seems quite clear. The analysis of the research results of Briz and Al-Hajj (2004) suggests that Spanish consumers usually buy fresh fruits and vegetables (77%). At the same time, the research results of Eves & assoc. (2004) indicate that the largest share of demand in UK was related to the fresh vegetables (40%). In the European Union (2008) the highest demand was for fruits and vegetables (32%), bakery products (30%) and dairy products (27%). According to data from the site (www.organicdenmark.dk) the most represented organically produced products in Denmark are (2008) milk and dairy products (38%), fruits and vegetables (20%), wheat, bread and flour (15%) and meat (9%). In addition, most of the supermarkets have their own organic, or bio-brands.

Place of purchase of organic food - Most of the respondents (45%) buy these products in specialized shops, so called “*healthy food*” shops, followed by conventional retail stores (supermarkets) (25%), green markets (15%), and direct purchases from producers (11%). According to research results by Radman (2005), in Croatia most of the respondents (46.3%) purchase organic products at the local green markets and only 9.9% buy them in supermarkets.

In order to determine the correlation between different organic products and the chosen place of purchase the chi-square test was applied. Obtained test values ($p > 0.05$) indicate that the type of purchased organic food does not affect the selection of places where the examinees buy these products.

In U.S.A. consumers mostly buy organic food in supermarkets (44%), then in specialized supermarkets - for organic food (31%) and in classic organic food stores (12%). The green market participates with only 3% (Organic Natural News, 2006).

According to research by Briz and Al-Hajj (2004), organic food in Spain is mostly purchased directly from producers (52.3%). Most favored location for organic products purchase in some countries is supermarket. In Greece 80.9% (Fotopoulos and Krystallis, 2002), in U.S.A. 49% (Dimitri and Green, 2002), in Czech Republic 50%-60% (Richter, 2005) of examinees shop for organic products in supermarkets.

In Macedonia, according to Sekovska (2010), the distribution of organic food products is mainly through supermarkets 50% (specially organized departments for healthy food). The other important sale channel consists of specialized shops for organic products, with a share of 45%, while additional 5% comes from direct sale from farms to companies which deal in catering (restaurants, hotels, etc.) and some public institutions (hospitals).

Organic products assortment at the market - Two-thirds of the respondents (66%) believe that the market supply with the various products from organic agriculture in Serbia is on a really low

level. 29% of them think that the supply is not satisfactory, while at the same time, only 5% believe that the assortment is on a satisfactory level.

This indicates the need for expansion of products from organic agriculture and food industry assortment, continuous and stable supply, and adequate marketing, e.g. on the Austrian market, there are about 8,000 different food items from this line of production, which represents a really wide and diverse supply (beer, confectionery products, pastry, fruit and vegetable juices, meat and dairy products, etc.).

Consumers readiness to pay higher price for organic products –55% of the respondents express readiness to pay higher prices for organic products, 23% of them are not willing to pay a higher price, while 22% of the respondents do not have a clear opinion related to that question (being primarily affected by the low purchase power).

According to Sekovska (2010), Macedonian market can not absorb more than 30% higher prices of organic products in comparison to the prices of the same products from conventional production.

How to Increase Demand and Consumption of Organic Agricultural Products

Demand for organic agricultural products is induced by the action of an array of factors. The first group consists of *economic* factors: consumers' income and retail prices. The second group consists of *non-economic* factors: knowledge of organic agriculture products importance, habits, tradition, assortment, market supply, brand recognition, etc. Therefore, measures for consumption increase can be taken at several levels:

- *Government measures*: knowledge about importance of consumption of these products; education of population, starting from the youngest (kindergarten), then through primary and secondary schooling and university program; legislation (e.g. in Italy, since 2005 all schools have had the legal obligation to prepare organic food for children).
- *Producers (processors) measures*: promotion of these products through the media, exhibitions, forums, manifestations - days of organic food, etc. There is a need for proactive use of adequate marketing and promotion approach, through which producers will communicate better with their surrounding spreading general and positive picture of company or products which are offered to the market, and accordingly achieve a positive impact on consumer's present and future attitudes.
- *Personal motivation of consumers* for better and more quality nutrition and lifestyle (An apple a day keeps the doctor away).

Summary and Conclusion

Based on the research results of the organic products consumption, the following conclusions can be drawn:

- A great number of consumers is not adequately informed about the importance of consumption of food produced in the system of organic production.
- 18% of the respondents are regular buyers of organic products. The low purchase power of consumers and the high retail prices represent the main demand and consumption limiting factors.
- More than a third of respondents still do not trust the producers, i.e. do not believe that the food is produced organically.
- Consumers mainly purchase fresh organic fruits and vegetables, followed by fruit juices and cereals.

- The majority of the respondents buy organic products in specialized shops, the so-called “healthy food” shops, followed by conventional retail stores (supermarkets) and green markets.
- Two thirds of the examinees believe that the market supply with the organic products in Serbia is on a really low level, 29% of them consider that the supply is not satisfactory, while only 5% are satisfied with offered assortment on the market.
- There is a necessity for products from organic agriculture and food industry assortment expansion, for continuity in supply and for an adequate marketing approach. Along with knowledgeable and educated consumers, consumption could be raised on another level.

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Atitudinea consumatorului față de consumul de alimente organice în Serbia

Rezumat

Producția agricolă intensivă afectează fertilitatea solului și poluează mediul, cauzând astfel poluarea produselor agricole alimentare. Prin urmare, un număr mare de consumatori se reorientează spre produsele agricole și alimentare organice. Alimentele organice includ alimentele care nu au fost tratate cu pesticide, ierbicide și alte substanțe chimice sintetice în timpul producerii, procesării și stocării. Alimentele organice nu conțin organisme modificate genetic, servind scopului obținerii unui sistem agricol sustenabil. Producția de alimente organice susține protejarea și conservarea mediului și pământului.

Principalul scop al acestui articol îl constituie identificarea factorilor care determină cererea și consumul acestor produse - sondarea preferințelor, motivelor, atitudinilor și interesului consumatorilor de a cumpăra produse organice în Republica Serbia. Acest articol oferă o comparație a rezultatelor cu cele obținute de cercetătorii din alte țări. Autorii indică necesitatea extinderii sortimentelor de produse derivate din agricultura și industria alimentară organică, recomandând continuitatea ofertei și un marketing adecvat. În plus, informarea și educarea consumatorilor pot crea condiții pentru creșterea consumului acestor produse.