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CONSUMER PERCEPTION OF ORGANIC FOOD IN CROATIA

In the past decade, both worldwide and in Croatia, there has been an increased interest in the production of organic products. This is the result of several factors. The most important elements of the organic food industry are linking agriculture and tourism, improving overall tourism, increasing consumer concerns for health, and increasing the area of uncultivated land suitable for organic production. Croatia has a very good platform for creating a specific environmental identity in the eyes of domestic customers and to export organic products to countries with higher standards.

Croatia has many comparative advantages for developing organic food production. Geographic conditions for organic farming in Croatia are very favourable. The diversity of climate, soils, crops, the environmental situation and the structure and diversity of economic activities are great advantages for the development of ecological agriculture. However, despite the great importance of organic production from one side and concrete figures on arable area, production volume, there is still a shortage of producers. Efforts to establish organic agriculture in Croatia are not easy, but they are certainly necessary and can be cost effective. Although in recent years the area of land dedicated to organic food has doubled, this amount is still negligible: only half of one percent of total agricultural land. If these are compared with the share of organic agriculture area in the member states of the European Union, which ranges from five to ten percent, their backwardness is evident.

The main objective of this study was to examine the consumer perception of organic food according to factors that encourage the consumption of organic products and to examine consumers' understanding of the concept of ecological agriculture. In accordance with the set objective, a survey was conducted in September 2009. The sample consisted of 102 randomly selected consumers of organic products.

The research data is important for both food producers and traders. It shows improvement in key elements of the placement of Croatian organic products, increasing availability of organic food to average Croatian consumers, and increased production surfaces for organic products. In addition, research data will serve organic producers as an information medium for the creation of future promotional options for their products.

Given its good geographical location, proximity to developed central and western European countries, i.e. the market where organic products are highly demanded, a market for organic products would be secured. Another favorable factor is the intensive development of tourism, which means that most of the products could be sold directly on the domestic market that is involved in the tourism industry.

Key words: organic food, food production, organic agriculture, consumer perception of organic food

1. INTRODUCTION

Food is a human need. The goal of every nation's production is to satisfy its own food demand. Lack of food is a problem worldwide, and in highly developed countries there is a growing trend toward not only satisfying basic nutritional needs but also eating healthy and wholesome food.

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that encourage consumption of organic products and to examine their understanding of the concept of ecological agriculture. The survey was conducted to achieve this objective. The sample consisted of 102 randomly selected consumers of organic products.

The research data is important for food producers and traders. It suggests key elements for improving the placement of Croatian organic products, increasing the availability of organic food to average Croatian consumers, and increasing land area used for organic food production.

2. SITUATION AND DEVELOPMENT OF ORGANIC AGRICULTURE

The concept of ecological, organic, or biological agriculture generally refers to the production of so-called "healthy food", food produced without mineral fertilizers, pesticides, and hormones. Organic food is produced by legally defined methods, and its composition must comply with general laws and regulations on food quality. Croatia has many comparative advantages for the development of organic agriculture. Geographic conditions for organic farming are very favorable. The diversity of climate, soils, crops, and the diversity of the structure of economic activities are significant additional advantages for the development of ecological agriculture. Another favorable factor is the intensive development of tourism, which means that most of the products could qualify directly for the domestic market of the tourism industry.

2.1. Status of organic agriculture in Croatia

The increase of organic production is one of the key goals of Croatian agriculture, which is shown by official policies and programs related to the development of agriculture. From year to year, the growing interest in organic farming is indicated by the number of producers registered in organic production and food products. Organic farming means not only production without the use of chemicals but also agriculture that incorporates the results of the current development of agricultural science. Therefore, it is unlikely that older and less educated farmers, without additional training and incentives, will be the proponents of a new means of production (GRAHOVAC, 2005). The only reliable source on organic production is the Ministry of Agriculture, Fisheries, and Rural Development. By the end of 2009, 786 registered organic producers were entered in the Register Of Organic Food Producers.

Total land area under organic production is increasing. By October of 2009, organic producers were managing 12.929 ha of agricultural land, with 8.795 ha of arable land, 2.220 hectares of meadows and pasture, 1012 ha of orchards, 94 hectares of forest, 259 hectares of vineyards, 147 hectares of olive groves, 113 ha of vegetables, and 280 ha of medicinal herbs. All these areas mentioned represent only 0.92% of total Croatian agricultural production.

2.2 The future of organic food production with respect consumers' perceptions towards organic products

The future development of organic food production is largely dependent on consumer perception of organic products. Interest in organic farming is encouraged by comparisons of organic with conventionally produced food. There is wide availability of scientific papers on the consumption of organic products that are trying to determine consumer perceptions, expectations, and attitudes regarding organic foods (JOLLY, 2001; DEMERITT, 2002; WOLF, 2002; CUNNINGHAM, 2002; HUNT, 2003; TORJUSEN et al., 2004). According to the authors (BONTI-ANKOMAH and YIRIDOE, 2006), consumer awareness and knowledge largely depends on the attitude towards organic products and the willingness to pay the price of the product. If one cannot distinguish between the two

products, higher price of organic products can confuse and skew individual's decisions in favor of cheaper products.

It is known that consumers make decisions on the consumption of organic products for a variety of reasons. The most often cited are health concerns, environmental concerns, and concerns about the quality of products (BONTI-ANKOMAH and YIRIDOE, 2006). Product labeling has an important role to play, certain trademarks are perceived as a guarantee of environmental friendliness. Organic food label allows consumers to better assess the quality before deciding to buy a product (CASWELL, 2000).

Comparing ecologically and conventionally produced food, it is difficult to visually determine differences in quality, so most consumers buy organic products because of their notions about such products. They believe that these products are of high quality with respect to products manufactured in a conventional manner (VINDIGNI et al., 2002).

Some contemporary studies compare consumers' knowledge and awareness of environmentally produced food and their willingness to pay for organic products (BONTI-ANKOMAH and YIRIDOE, 2006). These and similar studies provide a better understanding and better modeling of the market for organic products. For example, research conducted in the U.S. shows that knowledge and awareness are the most important factors in whether or not consumers buy organically produced food: 59% of respondents indicated that they did not recognize organic products on the market because they didn't know anything about these products (DEMERITT, 2002). Research conducted in the eastern Croatia (LONČAR et al., 2009) indicates that more educated respondents more regularly buy organic products (87%). These results indicate to us that knowledge and awareness of environmental products affect the attitudes and perceptions about the product and ultimately the decision to purchase. If one cannot clearly distinguish between products from organic production and products from conventional production, the price of organic products can confuse a consumer and influence his or her decision in favor of cheaper conventional products. A questionnaire done by HUNT (2003) noted some limitations associated with narrow definitions, and scant knowledge among consumers about organic products. In North America and Europe, several studies have been carried out on the assessment of consumer perceptions of organic food (JOLLY, 2001; DEMERITT, 2002; WOLF, 2002; CUNNINGHAM, 2002). The results of these studies have shown that consumers of organic products bought organic products because they perceived that products are healthier and better.

3. MATERIALS AND METHODS

Survey research was used in order to obtain primary data on consumer perception of organic products. Consumers were surveyed in Bjelovarsko-bilogorska and Zagreb County. The survey was conducted in September 2009. When selecting respondents it was taken into account that the interviewed respondents are consumers of organic food. Survey research was conducted to determine the perceptions of consumers regarding the consumption of organic products and was conducted on 50 randomly selected consumers of organic food in Bjelovarska-bilogorska county and on 52 randomly selected consumers of organic food in Zagrebačka county. The study used a questionnaire divided into 23 questions and structured in several parts: buying behavior of respondents,

place of purchase, most frequently purchased products, satisfaction with the product, and environmental reasons influencing customers not to buy organically produced food. The last part of the survey is focused on the opinions of respondents regarding the concept of organic food production and promoting organic food and its production.

After completing the survey, analytical processing of collected data was administered:

- analysis of open-ended questions – using descriptive analysis of the responses
- analysis of closed-type questions with multiple choice – using the basic mathematical and statistical methods to calculate the frequencies and percentages
- analysis of judgments by a formed Likert scale of 5 degrees – giving a quantitative evaluation of the testimony by calculating mean scores of the elements of the audit

The results are compared with similar research in Croatia and abroad. So far there have been only few similar studies in Croatia (KOPIĆ et al., 2008; LONČARIĆ et al., 2009; KOVAČIĆ et al., 2008). The research data will serve organic producers as useful tool for the creation of future promotional options for organic products.

4. RESULTS AND DISCUSSION

Review and analysis of research results conducted on a sample of 102 examinees is divided into groups: buying behavior of respondents, the motives for buying organic products, the place of purchase, satisfaction with organic products, the negative elements of supply of organic products, and information on organic production.

4.1. Buying behavior

The first question was related to the frequency with which people consume organic products. It was found that the largest percentage of respondents (38%) consume organic product on a daily basis, 35% of respondents answer that they use such products monthly, and 27% do so several times a week. This indicates that the participants recognized the importance of organic products. Previously it was said that the subjects in this study represent a group that has a positive perception towards organic foods, which may be one reason for such a large percentage of respondents who purchase organic products. The type of organic food purchased by respondents is mostly fruit and vegetables (34%), followed by cereals and legumes (25% of respondents), the smallest number of respondents primarily buy milk and meat (17%) (Fig. 1). Previous studies in Croatia have also shown that the most frequently purchased organic food are organic fruits and vegetables, for example, according to one study (LONČARIĆ et al., 2009), 61% of respondents buy organic fruit; another study (KOPIĆ et al., 2008) had 67% of respondents report that they buy organic fruits and vegetables.

4.2. Motives for buying organic products

The reasons for purchases of organic foods are most often medical (56%). It seems respondents perceive health effects as a major motive for buying organic food, followed by lower prices for organic products. Availability and greater choice of products are also mo-

tives that may influence the greater use of organic food in the diet. Among respondents the largest share is made up of those who have been buying organic food in the last 10 years and longer, as much as 27% of respondents, but the proportion of those who have been buying organic food in recent few years is also considerable (17%).

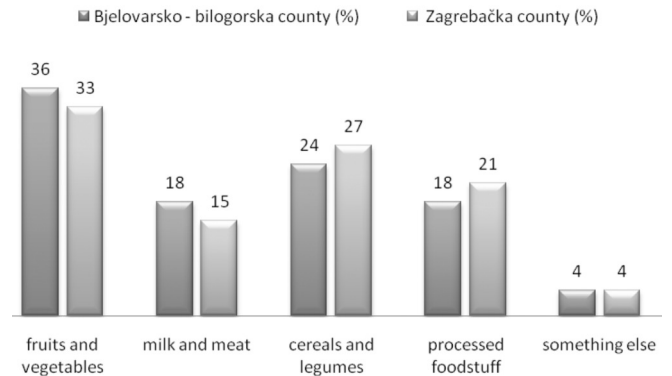


Fig. 1 Ecological products most frequently purchased by respondents

Reasons for organic food purchase have been listed and ranged in a scale from 1 to 5. Table 1 shows that the respondents perceived health reasons as the most important motive for buying organic food (3.96); this was followed by concern for the environment (3.62), and significant quality and taste (3.06). A similar survey (LONČAR et al., 2009) cited health reasons as the most common motive for buying organic food (4.45).

Table 1 Organic food purchase motives

	Health reasons	Quality	Better taste	Concern for the environment	Something else
BBC	3,34	3,00	2,82	3,36	0
ZC	4,55	4,00	3,30	3,98	0
	3,96	3,06	3,06	3,62	0

Regarding the relationship of customers to prices, 61% of respondents claimed that prices of organic products are reasonably high, and 39% of respondents feel that their higher price is not justifiable compared with conventional food. Since in their purchasing decisions consumers assess what they get, marketers must show them where the value lies. Results of research indicates that despite the high price of organic products, current consumers of organic products accept higher price products. According to research (LONČAR et al., 2009) results, it is also evident that most respondents (64%) consider the higher price of organic food justified.

4.3. Place of purchase

Zagreb county respondents purchase organic food mostly in specialized stores, while consumers in Bjelovarsko bilogorska got it directly from producers (Fig. 2). The least frequent place of purchase for organic products are green markets (16%). These data represent a significant step forward with respect to the previous survey in Croatia (RADMAN, 2005), where the results showed that the largest percentage of respondents (46.3%) purchased at markets, and only 9.9% of respondents purchase organic foods in supermarkets.

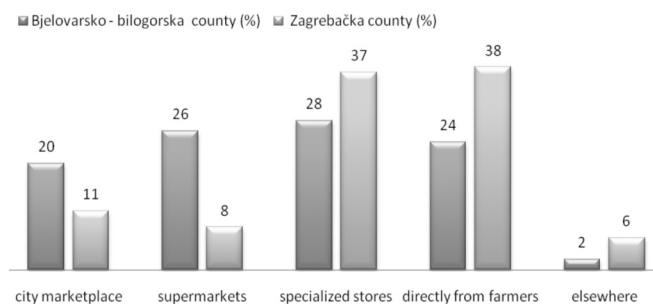


Fig. 2

The most common place of purchase for organic products

4.4. Satisfaction with organic food

Most respondents were of the opinion that organic food offerings could be better (51%), 19% of respondents were satisfied with the offerings, 30% of respondents were not satisfied with the organic foods offered on the market. The results of this study lead to the conclusion that it is necessary to improve the supply of organic food. The data obtained reveal a significant step forward compared to earlier research conducted in Croatia (LONČAR et al., 2009), where the majority of respondents (61%) declared that the offer of organic food was in accordance with the demand.

Regarding the decision to buy domestic or imported organic food, 98% of respondents prefer to buy local organic food, while only 2% of respondents opted for imported organic food. Such a high percentage of responses for the purchase of domestic versus imported organic product suggests that Croatian organic agriculture has very good prospects for the future.

4.5. The negative elements of the supply of organic products

In order to understand the elements that could be the basis for further organic food marketing development, respondents were asked to answer questions about what might be reasons for refusing to buy organic food. They responded that the main reason for not buying organic products is the price of organic food (Fig. 3). A large number of respondents considered that the availability of organic food is also a reason for not buying it (26%). Research carried out in 2007 (LONČAR et al., 2007) also showed similar results, with price and availability cited as the main reasons for rejection.

To increase the consumption of organic products, 79% of respondents see the solution in a significant investment in promotion and other aspects of marketing organic food.

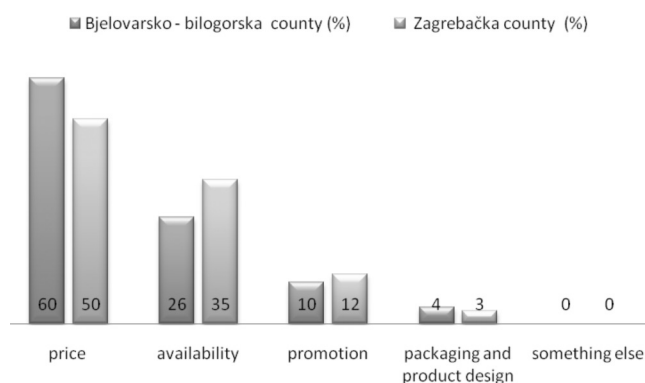


Fig. 3

Motives for refusal of organic food purchase

Most respondents claimed that they use specialized stores and direct sales. Therefore labeling¹ of the product is an obligation for producers. The study revealed interesting results that show how many respondents check a product label. The results show that 51% of respondents always look at the origin of the product labeling, 46% sometimes, and 3% of respondents never pay attention to it.

4.6. Awareness of Organic Production

Familiarity of organic food consumers with the meaning of the term "organic production" is shown in Table 2. A great number of respondents (83%) are of the opinion that they are quite well informed about it. Similar results were found in the research of the Italian organic food market (CANAVAR et al., 2007), where 70% of Italian consumers² stated that they were informed and familiar with the concept of organic food production.

Table 2

Awareness of the meaning of the term "organic farming"

Meaning of the term "organic farming"	Bjelovarsko – bilogorska county (%)	Zagrebačka county (%)	Proportion of respondents (%)
Very low	14	19	17
Well	52	50	51
Very good	34	31	32

Analyzing information sources, the most of respondents found out about it through television (37%) and word of mouth promotion (28,5%) (Fig. 4). Similar results on the sources of information on organic products were revealed by another national study (RENKO and BOŠNJAK, 2008), where 25% of respondents mentioned television as the main source of information on organic products.

¹ Labeling of organic products is a process of specifying data which identifies an organic product, its origin and its compliance with the prescribed requirements for organic production of agricultural and food products.

² The study included occasional and regular consumers and nonconsumers

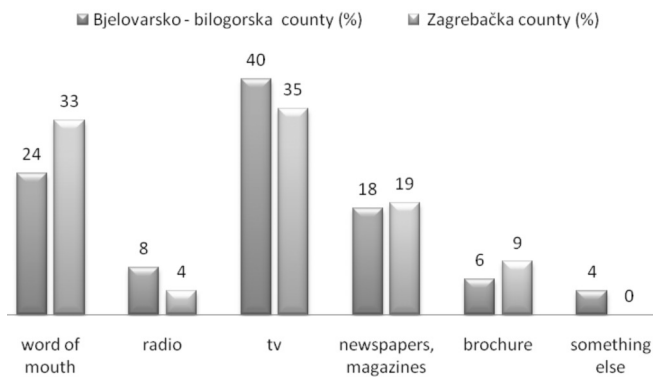


Fig. 4
The source of information about organic products

5. CONCLUSION

Research on consumer perceptions of organic food allows the conclusion that a large number of respondents consume organic products on a daily basis. In order to increase the number of organic food consumers it is necessary to educate consumers and explain to them the importance of organic food in their diets. About 63% of respondents believe that the higher prices of organic food versus conventional products are justified, which also shows a willingness to pay the higher price for organic products. The majority of respondents purchased organic products in specialized shops where they can get the most diverse range of organic products. That demonstrates the need to expand organic food offerings in other distribution channels to make them more accessible to more potential consumers. Possible new channels should target new consumer groups like schools, kindergartens etc. It will be a very important moment when the national tourist industry accepts this opportunity.

The Croatian organic food market is presently poorly developed and is lagging behind developed Western markets (the Law on Organic Production in Croatia was only adopted in 2001, while the EU has legally regulated this area since 1992). Demand for organic products can be increased only by attracting new consumers and by increasing the frequency of consumption by current consumers. Key factors for implementation of such strategies are increasing physical availability of organic food to average Croatian consumers and increasing production capacities of Croatian organic food producers.

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