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## EXPECTATIONS OF PODKARPACIE RESIDENTS WITH REGARD TO OFFERS OF ORGANIC FOOD PRODUCTS OF REGIONAL ORIGIN

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**Abstract.** The aim of the study was to present the conditions for development of food production and distribution of organic products in Podkarpackie voivodeship and to present the opinions of consumers representing various local communities from this part of the country about purchased eco-food. To achieve this objective, a survey was conducted using direct interview method. The study involved a total of 700 residents of Podkarpackie gathered through a purposive sample. The market of organic food products is a future-oriented segment of the food market. Consumers from Podkarpackie voivodeship are of the opinion that increasing the supply of eco-products on the market in this part of the country should apply especially to dairy products, fruits and vegetables, honey, herbs, meat, and bread. The development of the organic food market will be stimulated by, among other things, the increase in demand that results from raising the level of consumer awareness of quality of organic food and its impact on health.

**Keywords:** organic food, consumers, market, supply

### INTRODUCTION

In the reality of a highly developed food economy, today's foodstuffs customers became increasingly aware of the relationship between their health condition and the quality of products consumed, and recognize the importance of the healthy aspect of food (Grzybowska-Brzezińska, 2004). This can be guaranteed with organic

food which demonstrates high biological value due to large quantities of essential nutrients, such as proteins, lipids, carbohydrates and vitamins – all of them well balanced, which is a matter of crucial importance. That characteristic, combined with the fact that such food is manufactured with the use of appropriate methods (Jeznach, 2007), in a pollution-free environment (Dżugan, 2014), ensures high quality of goods and allows the consumers to follow a healthy diet.

In EU countries, including Poland, the organic food segment is a part of the most dynamically growing foodstuffs market, especially after 2004 (Łuczka-Bakuła, 2013). What also can be noticed is that an increasingly large group of consumers adopts a green lifestyle, focusing on purchasing natural, appropriately labeled foodstuffs manufactured close to where they live (Rogala, 2015). Such attitudes of organic food consumers are conditioned by both individual (personal) and social factors. According to Schnell (2013), personal determinants include the following characteristics of local organic food: fresh, tasty, healthy and safe for health as it originates from a supplier known to the consumer. Meanwhile, referring to social considerations behind green products, Megicks et al. (2012) emphasize first of all their large importance in supporting the development of local entrepreneurship and their favorable impact on sustainable growth of consumption. Thus, high-quality organic food with beneficial health properties turns out

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to play an important role in human relationships with the natural environment and the economic environment.

Considering the importance of the development of the organic food segment for increasingly better ways of addressing consumer needs, the purpose of this paper is to present the conditions for the development of organic foodstuffs manufacturing and distribution in the Podkarpackie voivodeship, the feedback on organic foodstuffs purchased by consumers representing various local environments in this part of the country, and the suggestions on the growth of supply of specific organic foodstuffs.

## MATERIALS AND METHODS

This paper is mainly based on primary sources of information. A proprietary questionnaire was used as a research instrument to collect the information. The anonymous survey, based on a questionnaire<sup>1</sup>, was conducted in 2015 and covered a total of 700 purposely selected purchasers of organic foodstuffs. They resided in Rzeszów (voivodeship capital), Łańcut and Sanok (cities with a population of up to 50,000), Sokołów Małopolski and Tyczyn (urban and rural municipalities), and Wiązownica and Korczyn (rural municipalities). The characteristics of organic products were assessed based on the five-point Likert scale (1932) used to calculate the weighted average of each characteristic. The inductive and deductive method was employed to interpret the results of this study. Secondary sources of information were used to characterize the conditions for the development of organic products manufacturing and distribution in the Podkarpackie voivodeship.

## IMPORTANCE OF ORGANIC FOODSTUFFS MANUFACTURING ON A NATIONAL BASIS

Organic food means food manufactured in agricultural farms or processing companies approved to manufacture such food and to refer to their products as “organic food”. Organic products are designated with a certificate which proves they were manufactured in accordance with organic farming principles (Lemanowicz, 2014). Organic manufacturing has a positive environmental

impact. Furthermore, organic farming development measures provide opportunities for solving multiple problems related to the environmental protection, animal welfare, and development of rural areas by increasing their attractiveness. With its labour intensity, organic farming has a positive impact on the creation and sustenance of employment in rural areas.

Between 2003 and 2013, the number of organic farms in Poland grew by more than 11 times: from 2,286 in 2003 to 26,598 in 2013. The average size of an organic farm in 2013 was 25.19 ha. Over 42% of farms were located in three voivodeships: Warmińsko-mazurskie, Zachodniopomorskie and Podlaskie. The largest farms were located in the Wielkopolskie (42.59 ha) and Lubusz (38.78 ha) voivodeships while the smallest ones were encountered in south-eastern Poland: in the Małopolskie (10.01 ha) and Podkarpackie (15.66 ha) voivodeships. In Poland, in 2013, the area of land used in accordance with the organic farming regulations was approximately 675,000 ha, which represents approximately 4% of the total area used for agriculture (Ramowy..., 2014). Therefore, Poland offers a great potential for organic crops. Polish farmers have not used, and still do not use, fertilizers or plant protection products in large quantities as their financial resources are usually limited. According to a study by Kociszewski (2014), an opportunity for the development of organic farming can be seen in the declarations made by conventional farmers which suggest that the number of organic farms may increase to the equivalent of 6.8–24.2% of the total size of Polish farms. The main driving forces behind the transition to organic methods are health and environmental concerns, job satisfaction and agri-environmental subsidies. According to Komorowska (2015), the ability to export and develop the manufacturing of organic food is an opportunity to improve the use of labour resources. Also, it provides a development outlook for many agricultural farms, which is an unquestionable advantage in the context of the difficult situation on the labour market.

## CONDITIONS AND DEVELOPMENT OF MANUFACTURING AND DISTRIBUTION OF ORGANIC FOODSTUFFS IN PODKARPACIE

The area of the voivodeship analyzed is 1,786,400 ha which represents 5.7% of the Polish territory. Outstanding natural features, subject to legal protection,

<sup>1</sup> A study conducted by students of the Faculty of Economics who write their dissertations under the direction of the authors of this paper.

are located on 44.9% of the Podkarpackie area, and therefore this voivodeship is one of the country's ecologically cleanest regions. For comparison purposes, the average countrywide rate is 32.5%, which is 12.4 percentage points below the Podkarpackie voivodeship rate. Agricultural land represents about one half (52.9%) of the voivodeship area. Forests occupy 37.9% of the total area, or 40.7% if combined with wooded land and areas covered with bushes. The average area of an agricultural farm is approximately 4.3 ha of agricultural land, while the countrywide average is 9.3 ha (GUS, 2014). In this voivodeship, there are 37 persons working solely or principally in agricultural farms per 100 ha of agricultural land. On a countrywide basis, the corresponding index is 15 workers. The selected characteristics of the Podkarpackie voivodeship, as presented above and compared to the rest of the country, show that both natural conditions and people, as the main production factor, make this region a perfect place for the development of organic manufacturing by meeting the essential requirements: a clean natural environment and a greater labour intensity.

In the Podkarpackie voivodeship, organic manufacturing methods have been in place since 1999, initially in two farms only. Ten years later, this voivodeship was already ranked second in the country as regards organic manufacturing volumes, and the number of organic farms was 2050. In 2014, organic manufacturers ran 1511 agricultural farms. The development of organic farms after 2000 was fostered both by the implementation of the national organic farming legislation and by the dedicated EU subsidies, disbursed from 2004 to 2006 as a part of the Rural Development Plan and from 2007 to 2013 as a part of the Rural Development Program. Stringent requirements for farms, frequent inspections of the manufacturing rules performed by organizations and institutions authorized to approve organic products, as well as different life events that affect the farmers are the factors which make the number of farms vary from one year to another. Meanwhile, the total area of organic farms in Podkarpackie has increased for 16 years from 10.2 ha in 1999 to 23,509.7 ha in 2014. The development of farms and their growing area resulted in the increased supply of organically farmed raw materials. This, in turn, induced the entrepreneurs to engage in organic processing. In this voivodeship, the first organic company involved in agricultural and food processing was established in 2002. In 2014, there were 30 such enterprises operating in this part of the country. The

product portfolio of local entrepreneurs engaged in organic processing largely contributed to the development of the organic foodstuffs segment, and provided an enormous boost to retail trade to that extent. In the 2000s, in this voivodeship, local organic products were sold in their manufacturers' own stores and in the "Społem" retail chain. In the 2010s, the portfolio of such products was extended by specialized organic food stores. Also, they raised the interest of large retail stores which created separate stands (e.g. the FRAC store chain) for organic products manufactured solely in the Podkarpackie region.

## RESULTS OF THE STUDY

As regards organic foodstuffs manufactured and marketed in the Podkarpackie voivodeship, two types of characteristics (organoleptic and marketing features) were subject to assessment by consumers. Within the first type, the taste and freshness of organic products were the main areas of focus. This was because taste, as one of the basic human senses, is guiding nearly all consumers when purchasing foodstuffs (Bartoshuk and Beauchamp, 1997). And so is freshness, a characteristic that in addition to influencing the smell, taste and appearance, especially determines the fitness for consumption and health properties. The freshness of organic food is of particular importance due to extremely short expiry dates which are a notable feature of these foodstuffs (Komorowska, 2006). The second group of characteristics involved marketing instruments such as packages, availability, visibility, promotion and prices of organic products. Note that these are important elements considered with attention by today's consumers. Packages bear relevant information analyzed by consumers when purchasing specific items, and influence the actual purchasing process (Ankiel-Homa, 2014). Availability means the distribution of assortment in time and places convenient to customers, so they may smoothly obtain a specific product (Urban, 2008). In the case of organic product sales, visibility and promotions are matters of utmost importance (Hulten, 2011). When making purchasing decisions related to food, prices play a major role while being an essential part of marketing activities (Urban, 2008).

See Table 1 to find out how organic food products from the Podkarpackie region were assessed by surveyed consumers.

**Table 1.** Consumers' assessment of the characteristics of organic products from Podkarpackie voivodeship by Likert Scale (in points)

**Tabela 1.** Konsumencka ocena cech produktów ekologicznych pochodzących z woj. podkarpackiego według Skali Likerta (w punktach)

Specification Wyszczególnienie	Total research Ogółem badani	City – Miasto		Municipalities – Gminy	
		provincial wojewódzkie	to 50 thousand residents do 50 tys. mieszkańców	urban-rural miejsko-wiejskie	rural wiejskie
Organoleptic characteristics Cechy organoleptyczne					
taste – smak	4.21	4.42	4.32	4.10	4.01
freshness – świeżość	4.19	4.30	4.26	4.30	4.23
Marketing elements Elementy marketingowe					
package – opakowanie	3.26	3.40	3.16	3.02	3.61
availability – dostępność	3.13	3.49	3.09	2.68	2.62
visibility – wyeksponowanie	2.92	3.30	2.87	2.64	3.15
price – cena	2.83	3.11	2.56	3.02	2.20
promotion – promocja	2.74	3.13	3.10	2.70	2.27

Source: own research.  
Źródło: badania własne.

As shown by tabular data, the entire surveyed group as well as representatives of specific environments highly valued the organoleptic characteristics of organic foodstuffs manufactured and marketed in the Podkarpackie voivodeship. Both the taste and freshness were rated above 4 in the five-point Likert scale. Note that taste was rated higher by Rzeszów residents than by representatives of any other environments. On the other hand, the freshness of organic products was valued the most by consumers from Rzeszów and from urban and rural municipalities, reaching a rate of 4.30 in both of these environments.

The rates of marketing features of organic foodstuffs were by far lower and more differentiated. According to the adopted grading scale, in this group of features, packages received the highest scores from the entire population of consumers surveyed. The highest rate (3.61) came from inhabitants of rural municipalities. Availability was ranked second, and was valued the most by Rzeszów residents. According to

a study by Żakowska-Biemans (2011), the rural population more often declares not to be aware of the locations where organic food is sold. This results from a limited offering of organic food in stores located in rural areas. Also, rural consumers more frequently purchase organic food directly from manufacturers, or manufacture organic food on their own. The next marketing features, such as the visibility, price and promotion of organic goods, were poorly ranked by the population as a whole (a score below 3). Once again, consumers from Rzeszów set themselves apart by giving a score of 3.30 and 3.13, respectively, to the visibility and promotion of organic foodstuffs. The price was rated at the lowest level (3.11). The rates of the contemplated features vary across the environments. Thus, the visibility of organic products obtained the lowest score from residents of urban and rural municipalities while the promotion and price were ranked definitely low by the inhabitants of rural municipalities.



According to Żakowska-Biemans (2011), in spite of the growth trends demonstrated by the organic food market, organic foodstuffs still have a minor share in Europe's total food sales volume. And the reasons can be seen both on the organic food supply side and on the demand side. Poland exhibits a growing interest in organic food which is manifested by a boost in demand and by the increasing number of enterprises active in the manufacturing and distribution of organic food. However, the offering and availability of Polish organic food continues to be limited.

In the Podkarpacie region, manufacturers struggle to organize the sales of products manufactured on a small scale in farms. Therefore, farmers often sell their products to non-specialized processing plants. Manufacturers should be pursuing cooperation and association in order to jointly organize product sales and to establish small proprietary processing plants for organic products.

Table 2 shows the surveyed consumers' suggestions as to the need for enhancing the market offering of organic food.

Based on the mix of feedback from the surveyed population, as shown in the table, it is concluded that they see the need to enhance the market offering of organic foodstuffs in the voivodeship subject to study with respect to seven products and their derivatives. More than

45% of respondents reported the need to increase the supply of dairy, fruits, vegetables and honey while less than 37% were interested in a higher supply of herbs. The development of the organic market of meats and of bread was of interest, respectively, to nearly 31% and over 23% of respondents. The highest demand for the development of the market of all foodstuffs discussed was reported by consumers from rural municipalities and from urban and rural municipalities. A slightly smaller demand was reported by residents of urban centers, with Rzeszów inhabitants showing the lowest interest. The biggest differences in suggestions as to the enhancement of the offering of designated products could be seen between consumers from the voivodeship capital and inhabitants of rural municipalities, especially as regards such products as honey, dairy and herbs. In the case of consumers from rural municipalities, the results for honey, dairy and herbs were higher by 48, 36 and 29 percentage points, respectively, compared to those recorded for Rzeszów residents.

According to statistical research on organic farming around the world, Poland has the largest area of organic fruit tree and bush plantations, mainly apple tree plantations. Poland is also among the world's top 10 countries with the largest area of organic vegetable cultivation (The World..., 2014). However, a significant part

**Table 2.** Organic products which require increased market supply on Podkarpackie voivodeship in the opinion of respondents (%)  
**Tabela 2.** Produkty ekologiczne wymagające zwiększenia podaży na rynku woj. podkarpackiego w opinii respondentów (%)

Specification Wyszczególnienie	Total research Ogółem badani	City – Miasto		Municipalities – Gminy	
		voivodeship województwie	to 50 thousand residents do 50 tys. mieszkańców	urban-rural miejsko-wiejskie	rural wiejskie
dairy – nabiał	49.1	26.0	47.0	50.0	62.0
fruits – owoce	46.6	28.0	43.0	50.0	56.0
vegetables – warzywa	46.1	29.0	42.0	49.0	56.0
honey – miód	45.1	18.0	40.0	43.0	66.0
herbs – zioła	36.7	19.0	34.0	37.0	48.0
meats – wędliny	30.6	24.0	26.0	29.0	40.0
bread – pieczywo	23.1	18.0	20.0	23.0	29.0

Source: own research.  
 Źródło: badania własne.

of the domestic production of organic food is exported. Organic food has a small share of about 0.2% in the Polish food market. This is one of the reasons why Polish consumers find it difficult to access organic food.

## SUMMARY

Both in the Podkarpackie voivodeship and throughout the country, the number of agricultural farms based on organic approach has consistently increased since the beginning of the 21<sup>st</sup> century. The growth of organic manufacturing has driven the creation of the organic raw materials processing sector, and has contributed to the development of organic food retail trading. Positive developments involved in this process take place in the Podkarpackie voivodeship which demonstrates the growth of organic food distribution operations in a chain of various retail store types.

As shown by empirical studies conducted in the Podkarpackie voivodeship, in spite of the growing demand for this category of food and the increasing number of processing plants, the diversity of the offering and the availability of organic food continue to be limited, especially for the rural population. In the survey, consumers highly valued the taste and freshness of organic foodstuffs, whereas the marketing features of organic food manufactured in the Podkarpackie voivodeship were rated significantly lower. Meanwhile, the consumers expect the market offering of organic foodstuffs to be enhanced.

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## OCZEKIWANIA MIESZKAŃCÓW PODKARPACIA W ZAKRESIE OFERTY EKOLOGICZNYCH PRODUKTÓW SPOŻYWCZYCH POCHODZENIA REGIONALNEGO

**Streszczenie.** Celem opracowania było zaprezentowanie warunków rozwoju produkcji i dystrybucji spożywczych produktów ekologicznych w woj. podkarpackim oraz opinii konsumentów reprezentujących różne środowiska lokalne tej części kraju, na temat nabywanych ekoproduktów żywnościowych. Dla realizacji powyższego celu przeprowadzono badania ankietowe, a jako narzędzia badawczego użyto kwestionariusza ankiety. Objęto nimi łącznie 700 mieszkańców woj. podkarpackiego. Dobór próby do badania był doborem celowym. Rynek ekologicznych produktów żywnościowych to przyszłościowy segment rynku artykułów spożywczych. Konsumenty z woj. podkarpackiego są zdania, że zwiększenie podaży ekoproduktów wytwarzanych i oferowanych w tej części kraju powinno dotyczyć zwłaszcza nabiału, owoców i warzyw, miodu, ziół, wędlin oraz pieczywa. Rozwój rynku żywności ekologicznej będzie stymulowany między innymi wzrostem popytu, który wynika z podnoszenia poziomu wiedzy konsumentów na temat jakości żywności ekologicznej i jej wpływu na stan zdrowia.

**Słowa kluczowe:** ekologiczne produkty spożywcze, konsumenci, rynek, podaż

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