

## ORGANIC FOOD IN CONSUMER AWARENESS OF THE OSTROLEKA COUNTY

### Summary

The level of consumer awareness related to organic farming among the residents of Ostrołęka County is presented in the study. The research material consists of the survey data. 120 people were surveyed in 2015. The questionnaire consisted of two parts. The first part concerned the information related to organic farming while the second one related to the information about a person interviewed. The obtained results of the research allow to conclude that 93% of the respondents have heard of the concept of organic food before. The vast majority of the people (84%) declared that they would start buying organic food if it were cheaper or if their income was higher. More than one quarter of the respondents buy organic food. The main reasons of buying organic food result from the fact that it is healthier than conventional food (88% of the respondents), organic food does not contain harmful substances such as preservatives or fertilizers (81% of the respondents), organic food tastes better (75% of the respondents) organic food is not genetically modified (50% of the respondents).

**Key words:** organic food, consumer awareness

## ŻYWNOSĆ EKOLOGICZNA W ŚWIADOMOŚCI KONSUMENTÓW POWIATU OSTROŁĘCKIEGO

### Streszczenie

Przedstawiono poziom świadomości mieszkańców powiatu ostrołęckiego dotyczący żywności ekologicznej. Materiał badawczy stanowiły dane pochodzące z badań ankietowych przeprowadzonych wśród 120 mieszkańców powiatu w 2015 r. Kwestionariusz ankiety składał się z dwóch części. Pierwsza dotyczyła informacji na temat żywności ekologicznej, druga zaś składała się z informacji o osobie ankietowanej. Uzyskane wyniki badań pozwalają stwierdzić, że 93% spotkało się wcześniej z pojęciem żywności ekologicznej. Zdecydowana większość badanych (84%) zadeklarowała, że zaczęłaby kupować żywność ekologiczną, jeżeli byłaby tańsza lub jeżeli miałaby wyższe dochody. Spośród badanych, ponad jedna czwarta kupuje żywność ekologiczną. Główny powód jej zakupu to przekonanie, że jest ona zdrowsza od żywności konwencjonalnej (88%), nie zawiera szkodliwych substancji, takich jak konserwanty czy nawozy (81%), ma lepszy smak (75%) i nie jest modyfikowana genetycznie (50%).

**Słowa kluczowe:** żywność ekologiczna, świadomość konsumentów

### 1. Introduction

Organic farming in Poland was initiated in the 30s last century. However, only during last years the market of organic food has become one of the fastest-growing sectors of the economy connected with food [12]. Grants from the European Union are the main but not exclusive factor of dynamic development of organic farming in Poland. The changes in the Polish farming which took place after the year 2004 resulted from the support for the farming through Common Agricultural Policy of the European Union [5, 11].

Consumer's interest in the organic food is an effect of changes occurring in the environment. Air, soil and water pollution as a result of human activity caused that they had started seeking other solutions. The information concerning animal husbandry methods, genetic modification, the use of chemical plant protection products and antibiotics led to increased interest in organic food, because the problems mentioned above are not applicable to it as it is produced organically [1].

One of the reasons why consumers decide to buy organic food is their care of own health. There are preservatives, artificial colourings, additives for improving the taste and smell in the food that produced conventionally. For that reason, more and more consumers are looking for safe food which does not contain potential harmful substances and which is produced organically [16, 20].

IFOAM assumed that organic farming put "production of food with high nutritional qualities" on the first place [9]. Constantly increasing awareness of environmental protection in the society is another important aspect that causes an increase in interest of organic food. Organic farming allows to mitigate climate. Moreover, the farmers, who produce organic food act in accordance with the nature, take care of diversity conservation of flora and fauna strengthening natural regulatory processes [14]. Organic food is often associated with regional food. Consumers are looking for the products which are produced near to them, uniquely, in an environmentally-friendly way and with the use of traditional methods [2]. Regional products are close related to the definite area. They have been produced in the same way for decades and are often connected with their manufacturer. It guarantees consumers steady high quality of these products and also gives the guarantee of the origin of the products they are made of organic food produces less food miles i.e. a unit of distance where food is transported [7].

The main factor that reduces the demand for organic food is its price. Organic food from certificate farms and processing plants is more expensive than the food which is produced conventionally, because of many reasons. It involves more work, higher maintenance costs of animal welfare, and higher costs of individually produced a product because of smaller production scale.

Lower availability and diversity of organic food is another factor that influences on reduction of demand for this kind of food. Despite of constantly increasing number of places where you can buy organic food, there are still far fewer such places in comparison with those where you can buy conventional food [19].

The demand for these products has been increasing despite of the factors that have a negative impact on the development of the market of organic food. The prices of organic products in Poland are slightly going down due to constantly growing distribution network and implementation of technological solutions.

## 2. The purpose, scope and methodology of the research

The purpose of the research was to define the level of the awareness related to organic food among the residents of Ostrołęka County. 120 people were surveyed. The selection of the respondents was random. The questionnaire was divided into two parts. The first part concerns the information related to organic farming while the second one related to the information about a person interviewed.

The questionnaire included the questions about education, place of living, income and also the questions concerning the knowledge on organic food, preferences, access and restrictions connected with organic food. Statistical analysis, in which education and place of living were independent variables and the level of education, frequency, purchase intention, interest and tendency to pay more for organic food were dependent variables, was performed.

## 3. The results of the research

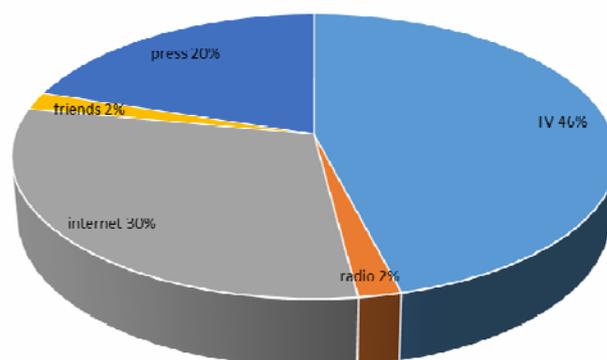
120 people – 68 women and 52 men from Ostrołęka County took place in the survey. The most respondents had secondary (37%) and higher (30%) education. A large number of the respondents had professional education (27%). At least 5% of them had junior high education and only 1% had post-secondary education.

42% of the respondents live in rural areas while 58% of them live in Ostrołęka. Over two thirds of the respondent's work (42%) or study (32%), one fifth do not work (20%) while 7% are retired. More than a half of the respondents (58%) have the household income PLN 500-1500 per person, nearly every third (30%) had the income less than 500 PLN and 12% of the respondents had the income higher than PLN 1500 PLN per person. Up to 93% of the respondents have heard the concept organic food before and only 7% of them have never heard of it before. Almost a half (46%) learnt about it from television. Every fourth gained the first knowledge from the Internet and every fifth from newspapers and magazines. Few of the respondents learn from the radio or their friends (Fig. 1).

The largest group of the respondents (72%) consider that organic food should be characterised by excellent taste and 67% of them think that this kind of food should be produced without the use of artificial fertilizers, preservatives or pesticides. About one fourth of them (28%) consider that organic food should have the appropriate certificate and packaging and only every fifth (18%) claim that it should be produced with a concern for animal welfare (Fig. 2).

Most respondents (68%) think that they are able to recognize organic food and more than a half (57%) consider that they follow a healthy diet. According to the vast major-

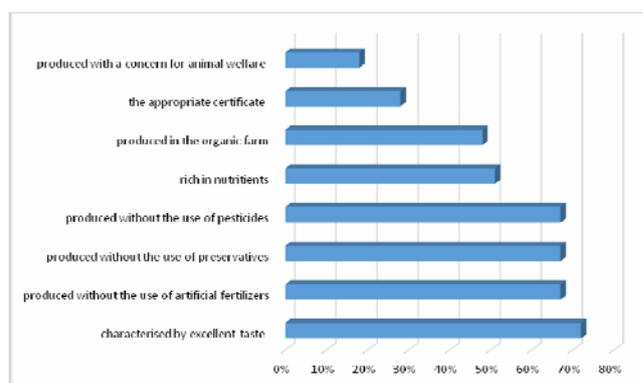
ity of the respondents (72%) organic food should be promoted more.



Source: own research / Źródło: opracowanie własne

Fig. 1. The first source of information concerning organic food

Rys. 1. Źródło uzyskania pierwszej informacji o żywności ekologicznej



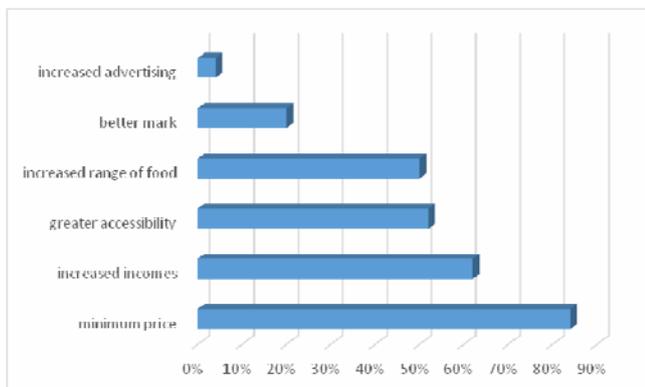
Source: own research / Źródło: opracowanie własne

Fig. 2. The features that organic food should possess in % (according to the respondents)

Rys. 2. Cechy jakimi według badanych powinna charakteryzować się żywność ekologiczna (%)

One fourth of the residents of the county (27%) declare that they buy organic food (Fig. 3). The main reason why they do not buy organic food results from its price. The vast majority of them consider that organic products are too expensive (86%) and poorly available (80%). Half of them do not buy organic food because of a small range and one third think that this kind of food looks and tastes worse. Only 7% of the respondents claim that they are accustomed to conventional food.

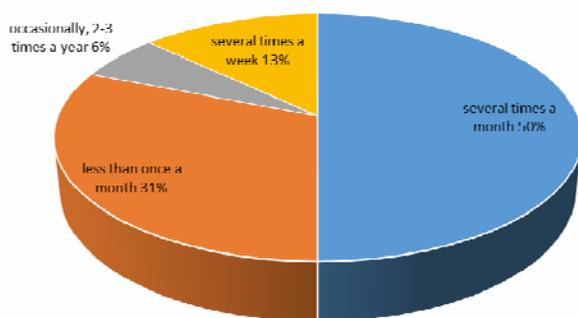
Among the factors that could persuade the respondents to purchase organic food the financial issue would be the most decisive. Most respondents (84%) declared that they would start buying organic food if it was cheaper or if they had higher income (62%) while more than a half of the respondents declared that better accessibility and the possibility of choice would be the argument in favour for them (Fig. 4).



Source: own research / Źródło: opracowanie własne

Fig. 3. The factors that may encourage to buy organic food those people who have not bought it yet

Rys. 3. Czynniki mogące skłonić do zakupu żywności ekologicznej przez osoby nie kupujące takiej żywności



Source: own research / Źródło: opracowanie własne

Fig. 4. Frequency of buying organic food

Rys. 4. Częstotliwość zakupu żywności ekologicznej

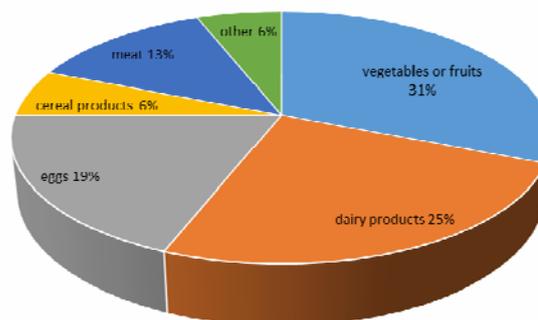
More than one fourth of the respondents buy organic food, because they are convinced that organic food is healthier than conventional food (88%), it does not contain harmful substances such as preservatives and fertilizers (81%), has better taste (75%) and is not genetically modified (50%). Concern for environmental protection is the issue that it was mentioned seldom (38%) animal welfare (25%) and appearance of food (19%).

The consumers (38%) buy organic food mostly in the shops (including large-format stores, for example, supermarkets and hypermarkets) and markets. Every fifth (19%) buy organic food on the farms which produced organic food and every twentieth via Internet (6%). Every fifth (19%) buy organic food on the farms which produced organic food and every twentieth in the Internet (6%).

More than half of the respondents buy organic food several times a month. One third of them buy it more seldom than once a month. And only every tenth (13%) buy it several times a week (Fig. 5). The vast majority of the respondents (75%) take the price into consideration while buying organic food, 69% pay attention to ingredients and 56% to labelling of products. 38% of the respondents claim that the appearance of a product and the description on packaging are less significant for them. 25% of the respondents mention that recommendations of others are important for them while only 19% of them claim that a producer is important.

The people who usually buy organic food claim that they choose vegetables or fruits, eggs or dairy products and

meat. They decide to buy cereal products less frequently (Fig. 5).



Source: own research / Źródło: opracowanie własne

Fig. 5. Organic food which is bought more often

Rys. 5. Produkty najczęściej wybierane przez osoby kupujące żywność ekologiczną

As for the issue of increasing the share of buying organic food in comparison with conventional food for their own households, up to three third of the respondents (76%) answered in the affirmative. So far half of the respondents have not bought more than 10% of organic food and two fifth buy from 10% to 50% of this kind of food. Every twentieth buy more than half organic products for their households.

Statistical analysis revealed a significant positive relationship between education and the level of knowledge related to organic food, the frequency of purchase and interest in organic products (Table 1). It also confirmed that the knowledge of organic products, the frequency of purchase and interest in organic food go in hand with an increase in the education of the respondents. The correlation coefficient for these relationships is respectively  $r = 0,923$ ;  $r = 0,726$  and  $r = 0,899$ . A positive correlation was observed in the case of the respondents place of living and interest in organic food. The residents of urban areas are more willing to buy organic food ( $r = 0,736$ ) whereas they are ready to pay more for it ( $r = 0,593$ ).

Table 1. The correlation coefficient between variables tested

Tab. 1. Współczynniki korelacji między badanymi zmiennymi

Education	The level of knowledge	Frequency of buying	Interest in organic food
Junior high school	0.655	0.414	0.618
Vocational	0.646	0.519	0.627
Secondary school	0.753	0.598	0.736
Post-secondary school	0.731	0.579	0.726
Higher	0.923	0.726	0.899
Place of living	Tendency to buy organic food	Tendency to pay more	
town	0.686	0.563	
village	0.481	0.413	

Correlation is significant at the 0.01 level (2-tailed)

Source: own research / Źródło: opracowanie własne

## 4. Discussion

The development of organic farming and the growing interest in organic food are resulted from the series of transformations in the area of agriculture and other branches of economy, policy and changes in the awareness of the whole society. On the one hand, it carries the possibility of change and development for producers. On the other hand, it creates positive environmental and social changes. In every local community the features of organic food supply and demand which are characteristic for it could be distinguished. Residents of large cities might have different ideas and habits than residents of small towns and villages.

The vast majority of the respondents know what is organic food. Taste and health aspects and production with no artificial substances are the most important features of organic food. According to the research conducted by Lewczuk, Jablonka and Pawlonka [8] 100% of the society in the north-eastern part of Mazowiecki Region are familiar with the concept of organic farming. 70% of the respondents consider that price and quality are the most important determinants. However, according to the research by Krelowska-Kulas [6] 75% of consumers choose health aspect and 27% choose taste aspect.

Despite the fact that the respondents know what is organic food and are aware of its advantages, this kind of food does not take an essential place in the diet of the residents of Ostrołęka County nowadays. The research has indicated several limiting factors of purchasing organic food. The price of organic products, their accessibility and a small range are resulted into the fact that the respondents buy this kind of products relatively seldom. The research conducted by Miśniakiewicz and Suwała [10] confirms that “the price of organic food which is too high and its accessibility” make that the society purchases it in very limited quantities. The research conducted by Łuczka-Bakuła [9] also confirms that the price and poor trade offer are the factors that limit the interest in organic food. However, Śmiechowska and Śmiejkowska [14], Cichocka and Grabiński [3] pay their attention to the issue of accessibility and distribution of organic food. It is positive that the respondents want to increase the share of organic food in comparison with conventional food. It can be assumed that an increase in income would be one of the factors which will have the most impact on buying organic food. Almost three quarters of the county residents deal with agriculture. Current economic situation is not conducive to raising income, that is why we should expect that until economic situation of the region improves, a dramatic increase in organic food consumption will not take place.

Faszczewska and Zalejski [4] emphasize that these actions must be started on the level of awareness of citizens, therefore it is necessary to invest in development of their ecological intelligence and awareness of risks which might take place in the case of not following the way of sustainable development.

## 5. Summary and conclusion

1. The vast majority of the society are familiar with the concept of organic food (93%). Traditional media such as press and radio (23%), but also television (46%) and the Internet (27%) take an important role in the promotion of organic food. The consumers have a determined image as for organic food. Most of them (68%) consider that they are

able to recognize organic food. Their ecological awareness is increasing with the growth of organic food market.

2. Smell of organic products is the most important for the respondents (three fourth) while health benefits are important for 88% of the respondents. The consumers buy this kind of food mainly because they care of their health and the health of their family. The state of the environment and farm animals are another purchase motivation. However, pro-social aspects do not have a decisive impact on purchase.

3. Despite many distribution networks of organic food, the respondents from Ostrołęka County buy organic food in shops more often than in the markets (38% of the respondents in both groups). It is resulted from the fact that there are only few specialized shops in the region. This may indicate an unwillingness of the respondents to put an effort to buy this kind of food. They do not spend additional time to purchase certain organic product while choosing the most accessible sources.

4. Price is the main factor which influences buying certain organic food by the respondents. Price is important for 75% of them while ingredients are significant for 69% of the respondents and labelling of products is important for 56% of them. This indicates high awareness of the respondents and unwillingness of not being influenced by advertising and opinions of others. The respondents are able to choose the most valuable to their opinion products when appropriate labelling on products is taken into consideration.

5. Statistical analysis demonstrated that better-educated respondents and residents of towns have higher awareness of organic food.

## 6. References

- [1] Augustyniuk-Kram A.: Rolnictwo ekologiczne a właściwości gleby i jej różnorodność biologiczna. *Studia Ecologiae et Bioethicae*, 2012, 10(1), 45-63.
- [2] Brodzińska K.: Rolnictwo ekologiczne – tendencje i kierunki zmian. *Zeszyty Naukowe SGGW w Warszawie. Problemy Rolnictwa Światowego*, 2014, 14(29), 3, 27-36.
- [3] Cichocka I., Grabiński T.: Psychograficzno-motywacyjna charakterystyka polskiego konsumenta żywności ekologicznej. *Żywność Nauka Technologia Jakość*, 2009, 5(66), 107-118.
- [4] Faszczewska K., Zalejski J.: Zachowania polskich konsumentów wobec produktów ekologicznych. *Ekonomia i Zarządzanie*, 2012, Vol. 4(3), 92-104.
- [5] Grabowska N., Kisiel R.: Rola dopłat unijnych w rozwoju rolnictwa ekologicznego na przykładzie województwa podlaskiego. *Woda Środowisko Obszary Wiejskie*, 2014, 3(47), 61-73.
- [6] Krelowska-Kulas M.: Preferencje konsumentów związane ze spożywaniem żywności ekologicznej. *Zeszyty Naukowe Akademii Ekonomicznej w Krakowie*, 2007, 743, 39-45.
- [7] Kwasek M. (red.): Z badań nad rolnictwem społecznie zrównoważonym. *Żywność ekologiczna – regulacje prawne, system kontroli i certyfikacji*. Państwowy Instytut Badawczy, 2013.
- [8] Lewczuk B., Jablonka R., Pawlonka Z.: Marketing żywności ekologicznej jako narzędzie kształtowania świadomości konsumenta. *Logistyka*, 2012, 4, 059-1065.
- [9] Łuczka-Bakuła W.: Rynek żywności ekologicznej wyznaczniki i uwarunkowania rozwoju. *Polskie Wydawnictwo Ekonomiczne*, 2007.
- [10] Miśniakiewicz M., Suwała G.: Żywność ekologiczna w świadomości Polaków. *Zeszyty Naukowe Akademii Ekonomicznej w Krakowie*, 2006, 705, 57-75.
- [11] Nachtman G.: Dochodowość gospodarstw ekologicznych a wielkość użytków rolnych. *Roczniki Ekonomii Rolnictwa i Rozwoju Obszarów Wiejskich*, 2013, 100(1), 1-15.

- [12] Nowogródzka T.: Stan i perspektywy rozwoju rolnictwa ekologicznego w Polsce. Zeszyty Naukowe Szkoły Głównej Gospodarstwa Wiejskiego, 2012, T 12(XXVII), Z 2, 54-65.
- [13] Pearson D., Henryks J., Jones H.: Organic food: What we know (and do not know) about consumers. Renewable Agriculture and Food Systems, 2011, 26, 171-177.
- [14] Runowski H.: Rolnictwo ekologiczne – rozwój czy regres. Roczniki Nauk Rolniczych, Seria G: Ekonomika Rolnictwa, 2009, 96(4), 182-193.
- [15] Śmiechowska M., Śmiejkowska I.: Postawy i zachowanie mieszkańców województwa pomorskiego wobec żywności ekologicznej. Journal of Research and Applications in Agricultural Engineering, 2006, 51(2), 190-198.
- [16] Świetlikowska K., Hallmann E., Bardadyn I., Rembiałkowska E.: Ocena zawartości związków bioaktywnie czynnych w wybranych sokach warzywnych pochodzących z produkcji ekologicznej i konwencjonalnej. Journal of Research and Applications in Agricultural Engineering, 2012, 57(4), 141-147.
- [17] Ueasangkomsate P., Santiteerakul S.: A study of consumers' attitudes and intention to buy organic foods for sustainability. Elsevier B.V. Procedia Environmental Sciences, 2016, 34, 423-430.
- [18] Verain M.C.D, Bartels J., Dagevos H., Sijtsema S.J., Onwezen M.C., Antonides G.: Segments of sustainable food consumers: a literature review. International Journal of Consumer Studies, 2012, 36, 123-132.
- [19] Zdrojewska I.: Raport o stanie rolnictwa ekologicznego w Polsce w latach 2011-2012. Główny Inspektorat Jakości Handlowej Artykułów Rolno-Spożywczych, 2013.
- [20] Żelezick M.: Dlaczego rolnictwo ekologiczne? Rocznik Świętokrzyski, Seria B: Nauki przyrodnicze, 2009, 30, 155-166.