

## THE EVALUATION OF THE RANGE OF ORGANIC FOOD FROM POLISH AND FOREIGN PRODUCERS IN THE SELECTED RETAIL STORES IN PIASECZNO AND ITS VICINITY

### Summary

Poland is a country where organic food enjoys a growing interest among consumers who care about a healthy lifestyle and pay attention to the quality of the consumed products. The increase in environmental awareness leads to a consumer's search for the food free of artificial chemical additives and impurities, and, therefore, the food beneficial for health. The aim of the study was to analyse the range of organic products from Polish and foreign producers in all specialised stores offering organic food in Piaseczno and its vicinity. The results show that in three-quarters of the examined shops the share of imported products surpassed this one of domestic products on the shelves. All the organic products were of European origin. The store assortment was not sufficiently diversified, with cereal products prevailing, while the products with a short shelf life and convenience food were lacking. The priority should be an emphasis on the growth of consumer awareness in order to make an conscious choice of products and to acquire the ability to distinguish organic products from others, as well as on the promotion of domestic products.

**Key words:** range of organic products, retail stores, Polish producers, foreign producers

## OCENA ASORTYMENTU ŻYWNOŚCI EKOLOGICZNEJ POCHODZĄCEJ OD POLSKICH I ZAGRANICZNYCH PRODUCENTÓW W WYBRANYCH SKLEPACH DETALICZNYCH NA TERENIE PIASECZNA I OKOLIC

### Streszczenie

Polska jest krajem, w którym żywność ekologiczna cieszy się rosnącym zainteresowaniem ze strony konsumentów dbających o zdrowy styl życia oraz zwracających uwagę na jakość spożywanych produktów. Celem pracy była analiza asortymentu produktów ekologicznych producentów polskich i zagranicznych we wszystkich sklepach specjalistycznych oferujących żywność ekologiczną Piaseczna i okolic. Wyniki wskazują, że analizowane sklepy oferują różny asortyment – Amaranthus i Eko-Spizarnia niewielki (172-211 produktów), natomiast Kombu Delikatesy i Organic Farma Zdrowia – dużo większy (585-605 produktów). We wszystkich sklepach produkty zbożowe reprezentowały największy asortyment, kolejno owoce, warzywa i ich przetwory, soki i napoje, kawa, herbata i kakao. Udział importowanych produktów przewyższał udział produktów krajowych w ¾ badanych sklepów. Kraje, z których import produktów ekologicznych jest największy, to Niemcy i Włochy. Główny wniosek z badań jest taki, że asortyment specjalistycznych sklepów ekologicznych wymaga rozszerzenia, najbardziej pożądane brakujące towary to produkty dla dzieci i żywność wygodna, ponadto mięso i nabiał. Jest ważne, aby zwiększyć udział krajowych produktów w sklepach z żywnością ekologiczną. Jeden ze sposobów polega na informowaniu konsumentów o wysokiej wartości odżywczej ekologicznych produktów, szczególnie krajowego pochodzenia.

**Słowa kluczowe:** asortyment produktów ekologicznych, sklepy detaliczne, producenci polscy, producenci zagraniczni

### 1. Introduction

Insufficient knowledge of Polish society about organic food causes that a high price is too frequently identified with the term 'organic', which, for many consumers, is just a publicity stunt. As a result of such standpoint the shop shelves with organic products are still rare on the Polish market. In turn, the low demand causes that the price of food from organic farms is high.

According to the available data in Germany number of the stores with organic food is 194 / mln citizens, while in Czech Republic 46, and in Poland only 8 [17]. In 2011 total sell of organic products in Poland was only 0,45 mln euro, while in Germany – 6,59 mln euro [17]. In terms of development of the organic food market it is important to educate consumers and support the organic agriculture sector. Ecological awareness of Poles is still insufficient; although general approach to environment is positive, it is alarming that young people (18-24 years old) are not interested in pro-ecological attitudes what is connected with their consumption approach to life [16].

According to the IFOAM (the International Federation of Organic Agriculture Movements), 'organic agriculture is a way of farming which activating the natural production mechanisms by the use of natural and technologically unprocessed agents ensures lasting fertility of the soil, animals' health and high biological quality of products. This system is sustainable, both ecologically and economically, and to a large extent independent of external inputs; with no burden to the environment it enables the development of agriculture and rural areas as priceless and timeless values in themselves' [23]. Based on the principles adopted in organic production, the organic food is created and then certified both in the scope of agriculture and processing [18]. Organic farming in Poland is still developing. According to the data from the Ministry of Agriculture and Rural Development, in 2003 there were 2,286 certified organic farms, while in 2012 – the number was larger more than ten times. The amount of farms is steadily growing each year, but the pace is moderate. A similar tendency can be also observed in the case of the quantity of organic processing plants in Poland [24]. The development of organic agriculture is

heavily influenced by the system of financial support for farmers, taking into account the farms under transformation [2] and the campaigns raising farmers' organic awareness [13].

An organic product differs from non-organic goods present on the market in the way of labelling, which confirms that it has been produced in accordance with the principles of organic farming. Its label, in addition to the information required by food law, contains the number of the certification body, the EU organic production logo and the information about the place of production of unprocessed agricultural products ('EU agriculture', 'EU/ non-EU agriculture', 'non-EU agriculture'). In the case of products imported and placed on the market as organic, there should be a name of the importer on the package [3, 4].

The quality of organic food is the most important factor which is guided by the consumer in selecting specific products. From the consumer's perspective, the most important determinants of the quality of organic food are: freshness, taste, GMO-free, absence of substances harmful to health, and nutritional value. For 28% of the consumers surveyed a low degree of processing proved to be very important, while 26% of them underlined the concern for the environment and animal welfare. Also the look of food products is vital for many consumers [20].

The comparison of the quality of organic and conventional food indicates a higher content of antioxidants in organic food by 30% [1]. As demonstrated by numerous scientific studies, the plants from organic farming contain more: vitamin C by 27%, iron by 21%, magnesium by 29% and phosphorus by 14% [22]. The study on tomatoes conducted by Hallmann et al. [6] and the potato research by Hajslova et al. [5] confirm the higher vitamin C content in agricultural crops from organic farming. A sensory quality of organic fruits and vegetables is also higher, which results, inter alia, from the higher dry matter content [12].

Along with the interest in a healthy lifestyle and the promotion of pro-environmental attitudes, demand for organic food is growing. The persons under 45 years of age (57%) predominate among the consumers of such products. Those aged 46-65 account for 31%, and the least numerous group are the young people under 20 years of age (9%) and the elderly over 65 (9%). A predominant group of people who buy organic products are women (63%). The majority (51%) of organic food consumers have a university degree and these are usually the residents of large cities [10].

## 2. Materials and methods

The research material was represented by the range of stores offering organic food in Piaseczno and its vicinity. There were taken into account specialised stores offering organic food, such as: Organic Farma Zdrowia, Kombu Delikatesy, Amarantus and Eko-Spizarnia (all organic stores in this small town). A study has been conducted using direct observations method combined with a direct interview in the stores which have offered the list of assortment.

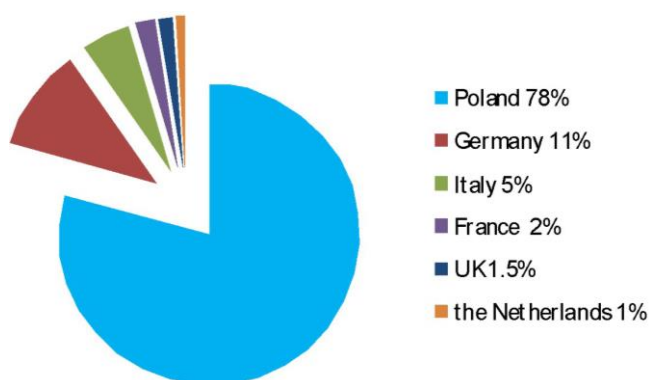
The range was divided into different groups: cereal products; vegetables, fruit, dried fruit and seeds; fruit and vegetable products; meat, poultry, cold meats and fish; baker's and confectioner's goods; products for infants and small babies; tea, coffee and cocoa; juices, beverages and syrups; fats (butter, margarine, and oil); milk, dairy prod-

ucts and eggs; seasonings and food additives; sweets and snacks; sugar and honey; mayonnaises, ketchups, mustards and sauces; and other.

The stores in which the analysis of the range of organic products was carried out can be divided into three categories. Amarantus and Eko-Spizarnia are small local shops; Organic Farma Zdrowia is a big store located in a shopping centre in Józefosław and belonging to the nationwide chain, while Kombu Delikatesy is a self-service shop. In each store, where the studies were conducted, not only organic food was available, but also the food for diabetics and vegetarians as well as gluten-free food.

## 3. Research results

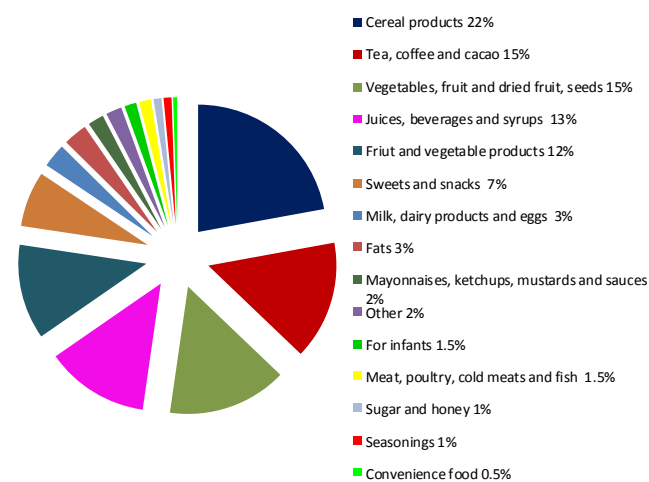
Amarantus offered the food from 6 different countries. The number of Polish producers, whose products were available, was 28, while the foreign ones – 23. The store assortment amounted to 211 products, of which 78% of products came from Poland (Fig. 1).



Source: Authors' own research / Źródło: badania własne

Fig. 1. Division of the store assortment with regard to the producer's country of origin in Amarantus [%]

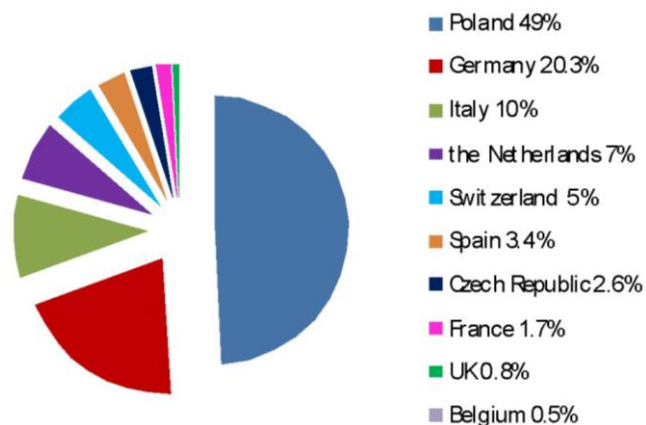
Rys. 1. Podział asortymentu ze względu na kraj pochodzenia producenta w sklepie Amarantus [%]



Source: Authors' own research / Źródło: badania własne

Fig. 2. The organic food range in the specialised store Amarantus [%]

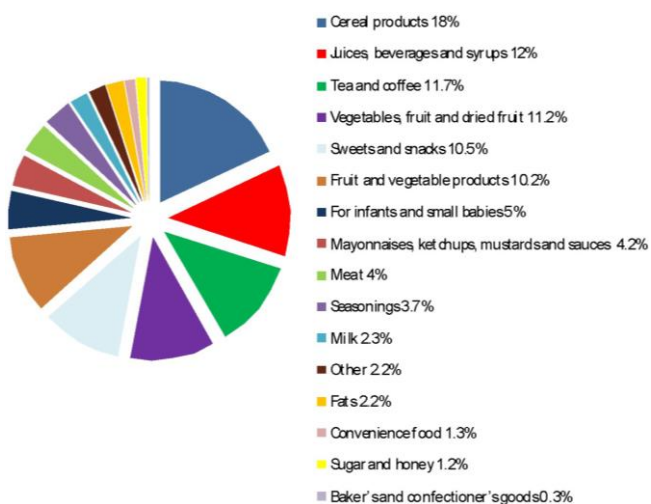
Rys. 2. Asortyment żywności ekologicznej w sklepie specjalistycznym Amarantus [%]



Source: Authors' own research / Źródło: badania własne

Fig. 3. Division of the store assortment with regard to the producer's country of origin in Kombu Delikatesy [%]

Rys. 3. Podział asortymentu ze względu na kraj pochodzenia producenta w sklepie Kombu Delikatesy [%]



Source: Authors' own research / Źródło: badania własne

Fig. 4. The organic food range in the specialised store Kombu Delikatesy [%]

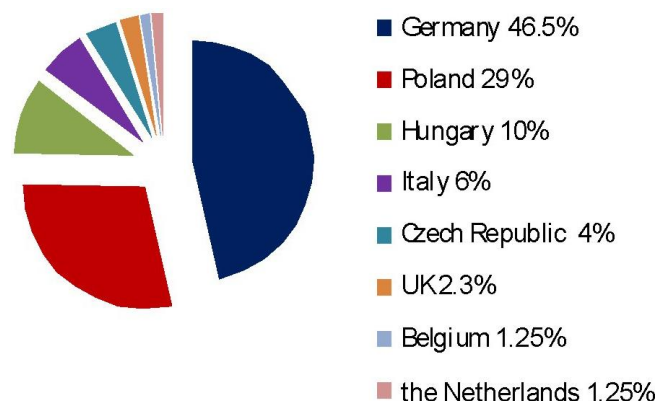
Rys. 4. Asortyment żywności ekologicznej w sklepie specjalistycznym Kombu Delikatesy [%]

The largest group of products in the store were cereal products, which accounted for 22% (47 products). Another numerous group were vegetables, fruit and dried fruit (15%) and tea, coffee and cocoa (15%), with 32 products in each of them. The poorest range of products concerned the group of meat, poultry and cold meats (1.5%); sugar and honey (1%); seasonings (1%) and convenience food (0.5%) (Fig. 2).

Kombu-Delikatesy offered the products from 10 European countries. The store assortment embraced 585 different kinds of products, including 286 from Polish producers, which accounted for 49% of the entire product range. There were 68 foreign and 20 Polish producers (Fig. 3).

The widest range concerned the group of cereal products. In this category, there were 108 products, which accounted for 18% of the entire product range. The next largest groups were as follows: juices, beverages and syrups (12%); tea and coffee (11.7%); vegetables, fruit and dried fruit (11.2%); sweets and snacks (10.5%). Sugar and honey (1.2%), convenience food (1.3%) and baker's and confectioner's goods (0.3%) represented the lowest percentage of the available products (Fig. 4).

The shop Eko-Spizarnia offered organic products from 29 producers from 8 different countries, including 6 Polish producers. The range comprised of 172 products, where the Polish products accounted for 29% (50 products). The vast majority was represented by the German products (46.5%) (Fig. 5).

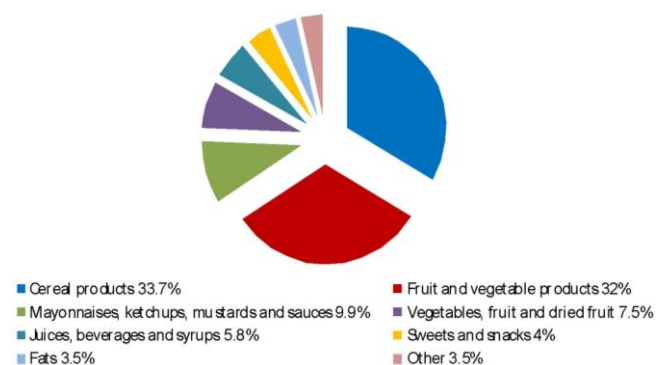


Source: Authors' own research / Źródło: badania własne

Fig. 5. Division of the store assortment with regard to the producer's country of origin in Eko-Spizarnia [%]

Rys. 5. Podział asortymentu ze względu na kraj pochodzenia producenta w sklepie Eko-Spizarnia [%]

The Eko-Spizarnia store sold the products in the following assortment groups: cereal products; vegetables, fruit and dried fruit; juices and syrups; fats; sweets and snacks; mayonnaises, ketchups, mustards and sauces. The largest group consisted of cereal products (33.7%), while the smallest one were fats (3.5%) and the products not classified in any of the above groups, identified as 'other' (3.5%) (Fig. 6).



Source: Authors' own research / Źródło: badania własne

Fig. 6. The organic food range in the specialised store Eko-Spizarnia [%]

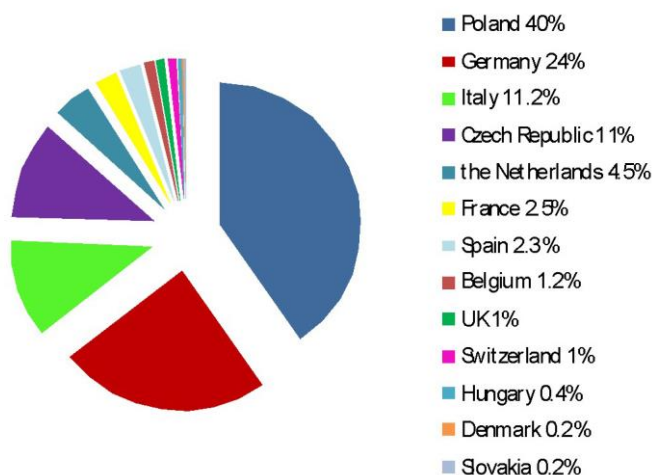
Rys. 6. Asortyment żywności ekologicznej w sklepie specjalistycznym Eko-Spizarnia [%]

The assortment of Organic Farma Zdrowia included 605 products from 13 countries, of which 40% came from Polish producers. The products from Germany occupied the second place in terms of quantity in the store range, which was 24% (Fig. 7).

The assortment of Organic Farma Zdrowia was very wide as compared to the other shops. It did not lack any of the product groups. The largest group consisted of cereal products including 16.5% of the whole range (73 products). Further numerous groups were: tea, coffee and cocoa (12%)

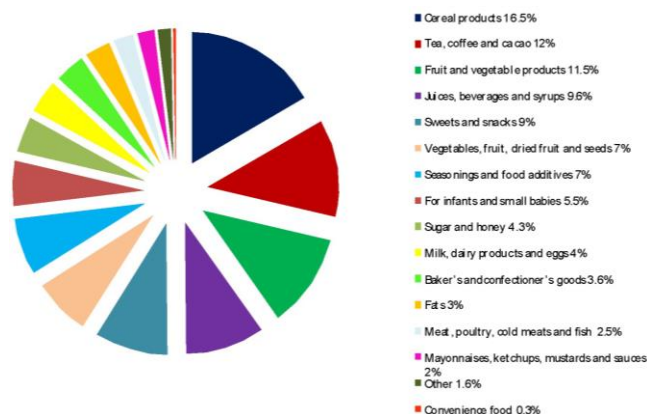
and fruit and vegetable products (11.5%). The smallest groups were mayonnaises, ketchups and sauces (2%), the products classified as ‘other’ (1.6%) and convenience food (0.3%) (Fig. 8).

The products of Polish producers represented a significant, but not dominant, share in the range of the organic food stores surveyed. In case of Amarantus, the Polish products accounted for 78% of the assortment. Organic Farma Zdrowia and Kombu Delikatesy offered 40% and 49% of Polish products respectively. In contrast, Eko-Spizarnia had only 29% of domestic products (Fig. 9).



Source: Authors' own research / Źródło: badania własne

Fig. 7. Division of the store assortment with regard to the producer's country of origin in Organic Farma Zdrowia [%]  
Rys. 7. Podział asortymentu ze względu na kraj pochodzenia producenta w sklepie Organic Farma Zdrowia [%]

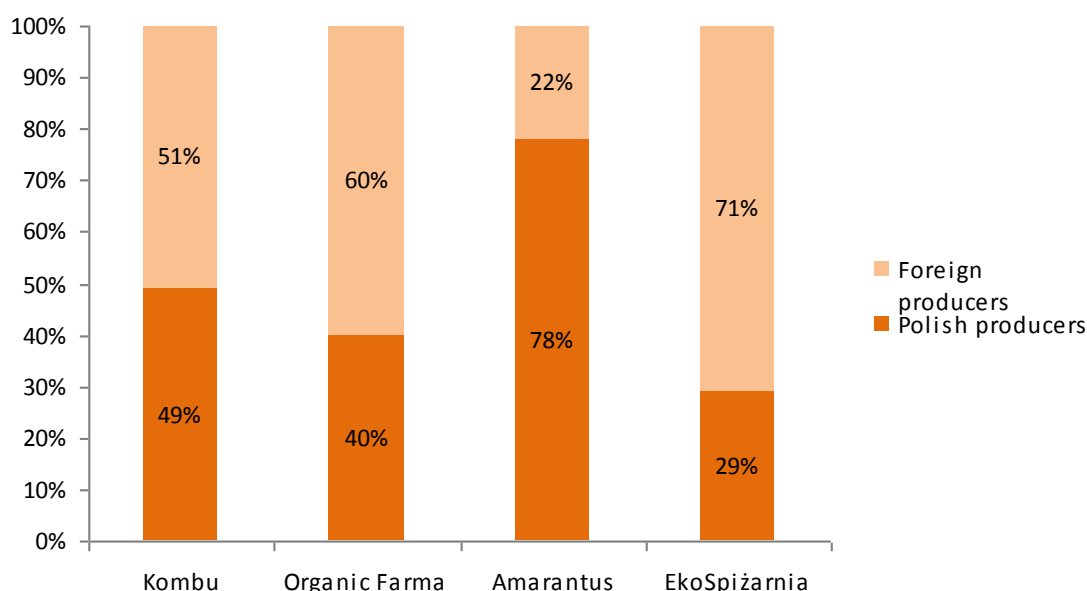


Source: Authors' own research / Źródło: badania własne

Fig. 8. The organic food range in the specialised store Organic Farma Zdrowia [%]  
Rys. 8. Asortyment żywności ekologicznej w sklepie specjalistycznym Organic Farma Zdrowia [%]

#### 4. Discussion of results

The big studies on organic food distribution channels were performed in 2006-2007. They included 45 stores, of which 2/3 was located in Warsaw. Nearly 40% of the shops offered the range of 100 organic products, and 25% of them – from 101 to 200 products [11]. Following studies conducted in Warsaw based on four randomly selected stores showed that one of them, Zielone Oko, offered about 200 organic products. Two other stores, i.e. Vega and Organic Market, had about 250 organic products. In the fourth store, Społem Sezam, about 400 products were available [14]. The number of products in the examined stores ranged from



Source: Authors' own research / Źródło: badania własne

Fig. 9. The percentage share of products from Polish and foreign producers in the store assortment of ‘Kombu Delikatesy’, ‘Amarantus’, ‘Organic Farma Zdrowia’ and ‘Eko-Spizarnia’

Rys. 9. Procentowy udział produktów pochodzących od polskich i zagranicznych producentów w asortymencie sklepów „Kombu Delikatesy” „Amarantus” „Organic Farma Zdrowia” oraz „Eko-Spizarnia”

172 to 605. It should be noted that *Amarantus* (211 products) and *Eko-Spizarnia* (172 products) are small local shops, while *Kombu Delikatesy* (585 products) and *Organic Farma Zdrowia* (605 products) may be regarded as large self-service stores. In specialised stores, organic food represents only a percentage of the entire assortment. In addition to organic products, there are often sold so-called diet products as well as gluten-free and vegetarian products. However, unlike organic food, they do not have a certificate and strict quality standards. In the study carried out by *Żakowska-Biemans* [26], the shops declaring the sales of organic products had such certificates and standards usually in 10-30% of the cases as compared to the whole range, and the rest were the products with no certificate. According to *Tyburski* and *Żakowska-Biemans* [21], the share of organic products in specialised stores in Poland is approx. 40-50%. The results of the *Brodzińska* [2] study have shown that the shops range is poor in the products with a short shelf life, such as milk and its products, meat and cold meats, while rich in cereal products and juices. The results of the research carried out by *Stańczak* [15] in the Warsaw specialty stores, including *Organic Farma Zdrowia* and *Sezam Społem*, present that the largest group of the organic products offered are cereal products (22%). Vegetables, fruit and their products represented 15 and 16% respectively. The least diverse range was typical of products for children and convenience food. The results presented in this paper are similar. The largest assortment group in each of the surveyed stores turned out to be cereal products. A large variety of products in the stores surveyed was demonstrated in the group of tea, coffee and cocoa, except for *Eko-Spizarnia* which did not offer such products with organic certificate. The group of fruit and vegetable products and juices was also abundantly represented in the stores examined. The poorest assortment group was convenience food.

According to *Łuczka-Bakuła* and *Smoluk-Sikorska* [11], the main reasons for a limited offer of organic products in the stores are as follows: lack of suppliers; low interest of consumers; high price; seasonality in supply; high production costs; and other. In addition, huge barriers to development of the organic food market are created by misleading the consumer while selling so-called healthy food, which is often confused with organic food [19].

While analysing the offer of organic food stores and taking into account the opinion of the respondents, one can claim that the available range should be expanded. Among the organic products that are missing in the stores the surveyed respondents mentioned: meat and its products, fruit and vegetables and dairy products [21]. The research conducted among the students shows that the products range needs to be extended by: alcohol (18%), coffee (16%), fruit and vegetables (14%) and herbs (11%) [9]. In the case of fruit, the small quantity in the stores is conditioned by underdeveloped distribution channels as well as weak cooperation and consolidation of producers' efforts. The recent study has revealed that although the market of organic products in Poland has improved in comparison with the previous period, still the small size of farms and their large dispersion throughout the country make it very difficult for individual producers to make and supply enough high quality fruit to demanding customers in large cities [8]. Generally the main distribution channel for organic food in Poland are specialised stores, the other channels are direct sale, supermarkets and Internet sale [25].

According to *Łuczka-Bakuła* and *Smoluk-Sikorska* [11], a high percentage of specialised stores offered imported organic products, i.e. 92.6%. Approximately two thirds of shops had 21-60% of imported goods, and in every tenth of them the percentage was 61-80%. In this study, the proportion of Polish products in *Amarantus* was 78%, while in *Eko-Spizarnia* only 29%. In *Kombu Delikatesy* and *Organic Farma Zdrowia* it was 49% and 40% respectively.

In the previous decade the big consumer's survey was conducted in Warsaw to learn the views on the measures that can contribute to the growth in organic food sales [26]. The results showed that the most important factor was the advertising and the information about the benefits of organic food consumption (72%). The respondents also believed that it is important to promote health-oriented and environmental knowledge among the society (44%), to promote organic methods of food production (33%) and to lower prices of organic products (33%). The range extension in the stores offering organic food and the introduction of organic products to local shops and supermarkets were chosen by 22% of the respondents. Only 6% of the respondents emphasised the crucial importance of attractive packaging of the products offered [26]. Lack of significant knowledge among the society determines the limited demand, since the ignorance is related to limited trust. It is therefore of great importance to carry out information campaigns on organic food [8, 26].

## 5. Statements

1. Tested shops offered various assortments - *Amarantus* and *Eko-Spizarnia* - small (172-211 products), while the *Kombu Delikatesy* and *Organic Farma Zdrowia* much larger (585-605 products).
2. In all stores cereal products create the largest assortment, consecutively fruits, vegetables and their products, next juices and beverages, and finally coffee, tea and cocoa.
3. The proportion of imported products surpassed that of domestic products in three thirds of the stores surveyed. Among the leading countries, which organic products are imported from, are Germany and Italy.

## 6. Conclusions

1. The assortment of specialised shops requires extending. It is short of the baby products and convenience food. There should be also expanded the range of available products in the groups of meat and dairy products, which will increase the assortment attractiveness for the consumer.
2. The development of organic farming in Poland should result in the increase in the share of domestic products. This would reduce the costs of transportation and storage, and thus the prices of the products would be more affordable for buyers.
3. It is important to inform the consumers about the high nutritive value of the organic products in order to increase the sale of them, especially domestic ones.

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