Renata KAZIMIERCZAK, Kinga SALACH, Ewa REMBIAŁKOWSKA

The Warsaw University of Life Sciences (SGGW), Department of Functional and Organic Food and Commodities, Poland e-mail: renata_kazimierczak@sggw.pl; ewa_rembialkowska@sggw.pl

DISTRIBUTION CHANNELS OF ORGANIC AGRICULTURAL PRODUCTS IN POLAND – AN EXAMPLE OF THE PRODUCERS FROM THE MASOVIAN VOIVODESHIP

Summary

In Poland, the number of organic farmers and organic agricultural area are growing. At the same time, more buyers are looking for the certified organic products on the market. An analysis of distribution channels of organic cereals, vegetables and animal products has been conducted in the paper based on data obtained from organic producers from the Masovian Voivodeship. A big share of direct sales of organic products was acknowledged. At the same time, there was a high percentage of organic producers who produced only for their own use, i.e. their organic products did not reach the market. In the opinion of the majority of the producers surveyed, organic production of vegetables, cereals and animal raw materials is close to cost consuming or unprofitable. In the analysed group a little interest of forming producer groups was found. In the present situation in organic farming in Poland it seems necessary to conduct the information and promotion actions not only among consumers, but also among farmers aimed at raising awareness of the possibilities arising from the increase in market activity.

Key words: organic production, distribution channels, market of organic products

KANAŁY ZBYTU PRODUKTÓW ROLNICTWA EKOLOGICZNEGO W POLSCE NA PRZYKŁADZIE PRODUCENTÓW Z WOJEWÓDZTWA MAZOWIECKIEGO

Streszczenie

W Polsce rośnie liczba rolników ekologicznych oraz powierzchnia ekologicznych użytków rolnych. Jednocześnie coraz więcej nabywców poszukuje na rynku certyfikowanych produktów ekologicznych. W pracy poddano analizie kanały zbytu zbóż, warzyw i surowców zwierzęcych pochodzących z rolnictwa ekologicznego w oparciu o dane uzyskane od producentów ekologicznych z województwa mazowieckiego. Stwierdzono duży udział sprzedaży bezpośredniej w zbycie surowców ekologicznych. Jednocześnie wykazano, że duży odsetek ankietowanych producentów ekologicznych stanowią rolnicy, których produkty nie trafiają na rynek, a są jedynie wykorzystywane na własny użytek. W opinii większości ankietowanych producentów ekologiczna produkcja warzyw, zbóż i surowców zwierzęcych znajduje się na granicy kosztów bądź jest nieo-płacalna. Stwierdzono także male zainteresowanie tworzeniem grup producenckich w badanej grupie rolników. W obecnej sytuacji rolnictwa ekologicznego w Polsce konieczne wydaje się prowadzanie działań informacyjnych i promocyjnych nie tylko wśród konsumentów, ale również pośród rolników, mających na celu uświadomienie ich o możliwościach wynikają-cych ze zwiększenia aktywności na rynku.

Słowa kluczowe: produkcja ekologiczna, kanały zbytu, rynek produktów ekologicznych

1. Introduction / Wstęp

In recent years, an increase in the number of organic farms and processing plants as well as organic farms area has been observed in Poland. Despite many favourable factors, the farmers who decide to convert the farming method encounter a number of problems, not only related to production, but also to the possibilities of marketing their products. One should keep in mind that running an organic farm is difficult because it requires of the farmer considerable expenditure of time and workload as well as wide knowledge of the natural relationships that are conducive to successful production effects. Larger expenditures are not always compensated by the gains obtained from the sales of organic products [13].

At the same time, a growing interest in organic products has been noticed recently among the Polish consumers. The demand is gradually increasing and the Polish market of organic food is shaping. It is therefore extremely important to distribute these products properly and to identify how they get to the buyers. According to forecasts, the prospects of development of the Polish market of organic products are optimistic. This applies especially to the larger cities, where the number of consumers buying organic food is growing mainly due to their concern for the health and environment. The greater public awareness is, among others, a consequence of the change in eating habits, income growth and the 'eco' fashion [16]. Also, the media scandals of food and animal diseases (swine flu or mad cow disease) as well as the presence of genetically modified organisms in products are of great importance [23].

Finished products of organic farming as well as organic agricultural products may hit the market through various channels, which – on the one hand – allow sales of the products, and on the other hand – combine producers with the market [5]. Basically, there are two types of sales channels of organic products. The first is the direct sales and the sales through specialist stores, while the second is based on conventional marketing channels, i.e. super- and hypermarkets [4, 14, 15].

Direct sales can be conducted on the farm, in the marketplace or bazaar, by a supply order, in own store or online. It is not demanding in terms of capital expenditures and can provide a farmer with regular incomes [8, 17]. In Western Europe, so-called subscription system, under which specific products are regularly delivered to the consumer's home or to a store, is becoming more common [7, 17].

Indirect sales channels for organic products are characterized by the presence of intermediaries between the producer and the final consumer. In this case the farmer bears lower costs associated with the search for buyers, warehousing and customer service, but he generates a lower profit [17]. Highly important is the sale in specialized stores with organic food. The advantage of the stores over direct sales is the availability of a large range of goods, but due to the profit margins product prices are higher and the producer earns less [7]. The presence of specialized organic shops in shopping centres is an example of the wide market opening for consumers, for whom the convenience and the possibility to purchase different types of products in one place are significant. In addition, such stores location can attract more so-called occasional customers [17]. Another form of indirect sales channels are conventional super- and hypermarkets [7]. But it is a very demanding channel for producers as a result of the need to respect the schedules of subsequent deliveries and to maintain repeatable qualitative characteristics of products [3]. There is also a tendency to increase the role of discount stores in the distribution of organic food, for example the German and Austrian markets. In Austria, the main sales channel of eco-products are supermarkets, discount stores and drugstores which generate 75% of turnover [17].

The share of conventional channels in organic products sales is predominant in the European Union countries [20]. In contrast, direct sales is typical of the countries with relatively low trade development in this scope, as exemplified by the Polish market of organic food. This is due to, among others, large dispersion of organic farms in our country [4, 12]. The advantage of direct marketing is the possibility to establish a direct relationship with the customer, to identify his expectations and to respond to changes in preferences more quickly [8]. In addition, this form of marketing gives the chance of selling products by smaller producers, who produce irregularly in small batches. This also allows reducing the price of products by eliminating the margin [4]. In turn, buying products directly from the farmer gives consumers the opportunity to identify their origin completely and to obtain direct information about the product and the production method [3].

A survey among the organic producers from the Masovian Voivodeship has been carried out in order to obtain broader information on the realities of the sales of organic crops and to learn the producers' opinion on the functioning of distribution channels and the sales structure.

Research hypothesis: organic farmers due to the weak development of distribution channels for organic products usually offer their products through direct sales channels and/or often have to sell them as conventional ones.

2. Materials and methods / Materialy i metodyka

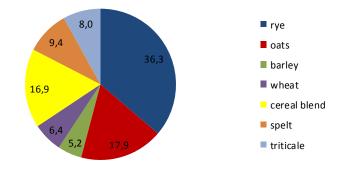
In the studies conducted in 2012 there was used a method of postal survey, which was sent to 230 organic farmers, selected based on *The List of Agricultural Producers in Organic Farming* – 2011 – the Masovian Voivodeship provided by the Agricultural and Food Quality Inspection (IJHARS). Prepared and used survey questionnaire consisted of 11 open and closed questions, and specifications containing basic socio-demographic data of the respondents.

The surveys were addressed to organic producers engaged in the production of cereals, vegetables and animal raw materials. After review, 52 properly completed survey questionnaires were qualified for the study and based on them the analysis of the use of various sales channels by the producers was carried out.

3. Results and discussion / Wyniki i dyskusja

The largest share of farms in the studied group constituted those of the agricultural land area amounting to 5-10 hectares (38.5%) and 10-15 ha (23.1%). According to the IJHARS analysis on organic farms structure, the percentage of farms of 5-10 hectares (24.1%) and 11-20 ha of crops (25.5%) was predominant in Poland in 2012 [19]. Therefore, one can conclude that the group of organic farmers surveyed was representative for Poland.

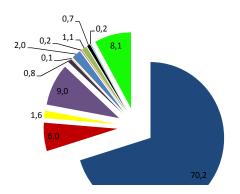
Organic cereals on the total area of 271.98 ha were cultivated on 92% of farms participating in the survey. The percentage share of different crops in total area of cereal crops is shown in Figure 1. The production was dominated by rye (36.2%), followed by oats and cereal blend (17.9 and 16.9% respectively). In 2010, the largest share worldwide in organic cereal crop area was attributed to wheat (41%), followed by barley and oats (12% each). Rye, however, represented only 6% of organic cereal crop area [22].



Source: Authors' own research / Źródło: badania własne

Fig. 1. The average structure of the cereal crops (%) *Rys. 1. Średnia struktura upraw zbóż (%)*

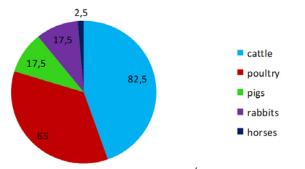
Vegetables were grown by approx. 63% of the surveyed producers, on the total area of 23.82 hectares. The percentage share of different crops in the total area of cultivated vegetables is shown in Figure 2. Definitely largest area was occupied by potato cultivation (70.2%), followed by pumpkin (9%), cabbage (8.1%) and carrot (6%).



Source: Authors' own research / Źródło: badania własne

Fig. 2. The average structure of the vegetable crops (%) *Rys. 2. Średnia struktura upraw warzyw (%)*

Out of 77% of the producers involved in animal husbandry, the largest percentage (82.5%) of them raised cattle, then poultry (65%), pigs (17.5%) and rabbits (17.5%). Only 2% of the respondents indicated having horses (Fig. 3).



Source: Authors' own research / Źródło: badania własne

Fig. 3. The average structure of the animal husbandry (%) *Rys. 3. Średnia struktura produkcji zwierzęcej (%)*

The surveyed producers dealing with organic cereals cultivation used the crops for their own needs in 54.2% of cases. The percentage of 35.4% of the producers sold directly to consumers, while 18.8% – to processing plants. The sales through an agent was declared by 6.3% of the respondents. A small group (4.2%) of the farmers sold the cereals produced as a conventional product.

In the case of vegetables and potatoes 45.5% of the farmers sold them directly to consumers, and 48.5% of the respondents used them for own needs. The percentage of the farmers selling their vegetables directly to retail trade and by the agent was in both cases 6.1%.

Among the surveyed farmers engaged in animal husbandry, a dominant distribution channel was direct sales (mainly milk and eggs), which was used by 75% of the farmers. 27.5% of the respondents sold through an agent (mainly meat and – to a lesser extent – eggs). 25% of the farmers sold directly to processing plants (milk and meat), while only one farmer delivered directly to retail trade (milk and eggs). Also, only one producer from the surveyed group declared selling of animal raw materials as conventional products. The percentage of organic producers consuming animal raw materials for their own use amounted to 15% (Table 1).

Tab. 1. The use of different sale channels of cereals, vegetables and animal raw materials by the surveyed farmers (% of responses)

Tab. 1. Wykorzystywane przez badanych rolników sposoby sprzedaży zbóż, warzyw i surowców zwierzęcych (% wskazań)

Sale channels	Cereals	Vegetables and potatoes	Animal raw materials
Directly to consum- er	35.4*	45.5	75.0
Directly to retail	0	6.1	2.5
Directly to pro- cessing plant	18.8	0	25.0
Through an agent	6.3	6.1	27.5
Export	0	0	0
As a conventional product	4.2	3.0	2.5
For own use	54.2	48.5	15.0

Source: Authors' own research / Źródło: badania własne * The figures in the table do not add up to 100% because the farmers used various distribution channels for the same raw materials

Similar results were demonstrated in the studies conducted in the Warmian-Mazurian Voivodeship by Pawlewicz and Gotkiewicz [16]. According to the authors, a large share accounted for the producers whose entire production was for their own use or those who sold only a small part of the agricultural products. The studies by Gazdecki [5] show that the most common sale channels included: sales to processing plants (59%), to agricultural products purchasing centres (44%) and direct sales from the farm (36%). A relatively widespread occurrence was the sales to another farmer (32%), to the exchange/wholesale market (22%) and retail market (16%). A smaller share represented the sales to catering establishments, i.e. canteens and bars (6%), and other ways of distribution (8%). Currently, the importance of sales to catering facilities is growing in Western Europe. A good example is Austria, where 4.8% of organic food is sold in this way. The advantage of this form of selling is providing a farmer with systematic sales and obtaining favourable prices [9]. According to Żakowska-Biemans and Gutkowska [24], direct sales is an important channel of distribution of vegetables and meat. However, in the case of meat no such dependence was found in the examined group of farms, since this form of sales related mainly to milk and eggs. The studies by Gazdecki [5] reported that the sale to processing plants relates, in particular, to producers engaged in animal husbandry. The own studies also showed such relationship.

The report on the status of organic farming in Poland [19] demonstrates that in 2012 the largest percentage share of industries in organic processing had the processing of fruit and vegetables (31.6%). Cereal processing accounted for 23.6%, while meat and milk processing was 7% and 4.7% respectively. In the case of the surveyed farmers from the Masovian Voivodeship, no sales of organic vegetables for processing were shown. This, however, concerned the sales of cereals (18.8 %) and animal products (meat and milk – 25% in total).

Out of 52 farmers surveyed, only few of them signed the contracts for the supply of raw materials. This concerned one cereal producer, one vegetable producer and seven producers of animal raw materials. In five cases these were long-term contracts for milk supply with dairies, while the other farmers had one-year agreements. Similar results were obtained by Pawlewicz and Gotkiewicz [16] who showed that in the case of the sales of various organic food materials produced on the farm, a majority of the producers did not have any contracts, and if so, the contracts concerned only selected products.

The questions included in the survey made it possible to underline the problems concerning individual channels of organic crops distribution in the examined group of respondents (Table 2).

Similar problems concerning the marketing of organic crops were stressed by the fruit producers in the study of Kazimierczak and Zgiep [6]. However, due to the nature of production, the organic growers were in a much better position in terms of export and cooperation with processing plants. The problems of organic farmers associated with selling through various distribution channels are partly due to specifics of the Polish agriculture and organic food market. We have relatively few specialty shops with organic food, which the farmers could supply, and their range of products is limited. An indirect link is also poorly developed; it includes specialized wholesalers who usually offer fruit and vegetable products, cereals and their products, and far less fresh fruits and vegetables [11]. Export can be an opportunity for producers, but more economically favourable is the export of processed products than unprocessed raw materials which are characterized by low brand recognition. Therefore, it is important to increase the number of organic processing plants, which can make products from the raw materials available in Poland [18]. An alternative form of sales of organic products, which could allow farmers to reach their customers better, is to sell through the Internet. This is an opportunity, especially for small farms, to establish cooperation with individual customers who - encouraged by high quality products - will become regular customers. However, only unprocessed (natural) plant and animal products may be sold in the form of direct deliveries from farms without the obligation to register a business activity and without the need to pay the income tax. In accordance with applicable laws and regulations, such activity requires entry to the register of direct selling entities made by the State District Sanitary Inspectorate competent for the place of running business [2, 21].

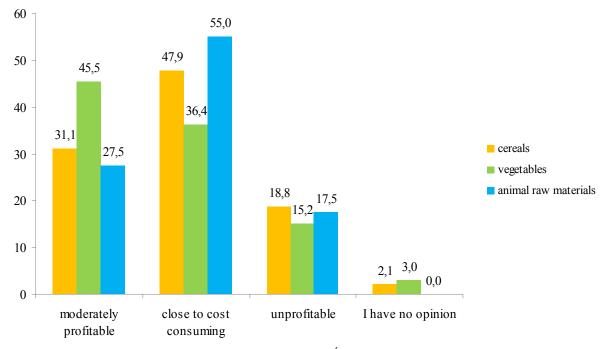
Out of all organic producers participating in the survey, only two farmers expressed their membership in producer groups. In the first case, the group consisted of 15 members. After joining the group, the producer did not notice any change in the sales of raw materials, either for the better or for the worse. In the second case, the producer who had confirmed his membership in the producer group consisting of three members assessed that after joining the group his selling position had greatly improved.

For comparison, in the studied group of organic growers 15 % of the respondents belonged to the producer groups; most of them estimated that after joining the group the sales of fruit had improved or improved significantly [6]. According to the experiment, the opportunity to cooperate with some distribution channels (e.g. retail chains) is generally limited to producer organizations [23]. The difficulty for individual farmers

is most often meeting the requirements set by a commercial chain [3]. A group action also allows increasing the negotiation advantage towards the recipient and winning better financial conditions for the materials and products offered [18]. The creation of a regional brand within the affiliated producers may be a way to promote a given region and to facilitate the promotion of food through various distribution channels, both in the country and abroad [18]. But farmers face many disincentives to organize themselves into producer groups. The main factors are administrative barriers and a negative attitude to the possibility of cooperation with other farmers [1].

Asked about the profitability of organic production of cereals, vegetables and animal raw materials the surveyed farmers generally responded that their business had been moderately profitable, or close to cost consuming, which was underlined mainly by the producers of cereals and animal raw materials. The production of vegetables turned out to be the most cost-effective, which was indicated by 45.5% of the respondents. Nearly 20% of the farmers assessed the production of cereals, vegetables and animal raw materials as unprofitable. None of the producers consider organic production as very profitable (Fig. 4).

The studies by Kociszewski and Śliczna [7] showed a significant increase in profitability for farmers who switched their production to the organic one. However, according to the study conducted by Kucińska et al. [10], 34% of the surveyed organic producers were definitely or relatively satisfied with the farm income, while 40% of the respondents were strongly dissatisfied. In the case of fruit growers, organic production was assessed as moderately profitable by 40% of the respondents, and by 48% – as close to cost consuming [6]. This may be due to the fact that the still low level of development of the organic food market in Poland often forces the farmers to sell organic products underpriced, frequently as conventional food, which results in the profitability decrease [16].



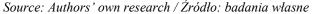


Fig. 4. The profitability of cereals, vegetables and animal raw materials production in producers' opinion (% of responses) *Rys. 4. Opłacalność ekologicznej produkcji zbóż, warzyw i surowców zwierzęcych w opinii producentów (% udzielonych odpowiedzi)*

Tab. 2. The problems related to fruit distribution channels in the respondents' opinion

Tab. 2. Problemy dotyczące kanałów dystrybucji owoców w opinii respondentów

Distribution channels	The identified problems		
	incurring additional fees (charges at markets, taxation, purchase of cash register); low demand (e.g. due to relatively		
Direct sales	higher prices compared to conventional products); time-consumption and additional involvement; irregular purchases by		
	consumers; legislation; such form of selling is possible only in larger cities;		
Retail trade	existing legislation; difficulties with invoicing; little interest among potential buyers; additional costs of transport in-		
	curred; offering lower prices to the farmer;		
Through an agent	underpricing (an agent earns at the expense of the farmer); extended payment terms; irregular receipts;		
Directly to processing	too small quantities of raw materials produced by individual farmers and the lack of processing plants nearby; quantita-		
plant	tive restrictions on the raw materials purchased; long wait for payment; underpricing in relation to quality;		
Export	too small scale of organic raw materials production; high quality requirements; long wait for payment.		
	Source: Authors' own research / Źródło: badania własne		

4. Conclusions / Stwierdzenia i wnioski

1. A considerable percentage of the surveyed organic producers uses the raw materials produced on the farm only for their own needs, not for marketing.

2. Among typical distribution channels, the surveyed producers most often use the direct sales both for vegetables, cereals, and animal raw materials.

3. Selling to processing plants is not very popular way of sales among the Masovian producers surveyed, although it is the region where most organic processing plants are located; the farmers who most often sell their raw materials to processing plants are those involved in animal husbandry.

4. In the opinion of the majority of the producers surveyed, organic production of vegetables, cereals and animal raw materials is close to cost consuming or unprofitable; the vegetables production was selected as relatively most profitable.

5. The membership in producer groups, which are intended to strengthen the market position of producers and to enable them to sell better, is not popular among the farmers surveyed.

6. An opportunity for development of the organic food market in Poland may be cooperation and consolidation of producers' efforts in the field of distribution, in particular through the creation of producer groups which give their members a possibility to organize not only sales, but also transport, storage and promotion.

7. It is important to ensure that the interest in organic agriculture growing among farmers results in increasing the number of organic products on the market. In the present situation it seems necessary to conduct the information and promotion actions not only among consumers, but also among farmers aimed at raising awareness of the possibilities arising from the increase in market activity.

5. References / Bibliografia

- Bieniek-Majka M.: Korzyści i bariery tworzenia grup producentów owoców i warzyw. Roczniki ekonomiczne Kujawsko-Pomorskiej Szkoły Wyższej w Bydgoszczy, 2011, 4, 11-19.
- [2] Czekaj M. B.: Internet jako narzędzie komunikacji w sprzedaży bezpośredniej artykułów żywnościowych na przykładzie witryny www.odrolnika.pl. Zagadnienia doradztwa rolniczego, 2013, 2, 57-66.
- [3] Drelichowski L.: Uwarunkowania logistyczno-organizacyjne i technologiczne budowy produkcyjno-dystrybucyjnych sieci dla produktów ekologicznych. Roczniki Nauk Rolniczych. Seria G, 2010, 97 (3), 81-87.
- [4] Dziedzic S.: Direct sale as essential distribution channel of ecological products in Podkarpacie province. Journal of Research and Applications in Agricultural Engineering, 2006, 51 (2), 22-29.
- [5] Gazdecki M.: Kanały zbytu produktów z gospodarstw rolnych. Logistyka, 2012, 4, 922-931.

- [6] Kazimierczak R., Zgiep U.: Channels of eco-products distribution on the example of fruit from organic orchards. Journal of Research and Applications in Agricultural Engineering, 2013, Vol. 58 (3), 248-254.
- [7] Kociszewski K., Śliczna M. (2010): Uwarunkowania rozwoju systemu dystrybucji żywności ekologicznej w Polsce na tle sytuacji w Unii Europejskiej. Stowarzyszenie Ekonomistów Rolnictwa i Agrobiznesu. Roczniki Naukowe, 12 (4), s. 183-189.
- [8] Korelska E. (2008): Sprzedaż bezpośrednia produktów ekologicznych. Stowarzyszenie Ekonomistów Rolnictwa i Agrobiznesu. Roczniki Naukowe, 10 (4), s. 177-179.
- [9] Korelska E. (2010): Production and organic food market in Poland and Austria. Journal of Research and Application in Agricultural Engineering, 55 (3), s. 183-186.
- [10] Kucińska K., Kostro G., Malinowska E., Golba J. (2011): Opportunities for the development of organic farming system in the Podlaskie province (region of Wysokomazowiecki district). Journal of Research and Applications in Agricultural Engineering, 56 (3), s. 236-242.
- [11] Łuczka-Bakuła W., Smoluk-Sikorska J. (2009): Level and diversification of organic food assortment offer in specialistic chain. Journal of Research and Application in Agriculture Engineering, 54 (3), s. 191-195.
- [12] Łuczka-Bakuła W., Smoluk-Sikorska J. (2010): The organic fruit and vegetables price level and the development of organic food market. Journal of Research and Application in Agriculture Engineering, 55 (4), s. 12-14.
- [13] Nachtman G. (2013): Dochodowość gospodarstw ekologicznych a wielkość użytków rolnych. Roczniki ekonomii rolnictwa i rozwoju obszarów wiejskich, 100 (1), s. 182-196.
- [14] Nestorowicz R. (2006): Kanały dystrybucji żywności ekologicznej. Przemysł Spożywczy, 12, s. 12-13.
- [15] Pawlewicz A., Gotkiewicz W. (2008): Rozwój rynku żywności ekologicznej. Stowarzyszenie Ekonomistów Rolnictwa i Agrobiznesu. Roczniki Naukowe, 10 (4), s. 320-324.
- [16] Pawlewicz A., Gotkiewicz W. (2012): Kanały dystrybucji surowców żywnościowych z gospodarstw ekologicznych z województwie Warmińsko-Mazurskim. Logistyka, 4, s. 1168-1174.
- [17] Pilarczyk B., Nestorowicz R. (2010): Marketing ekologicznych produktów żywnościowych. Oficyna a Walters Kluwer Business, Warszawa, s. 171-197.
- [18] Przybyłowski M., Tamowicz P. (2011): Opracowanie koncepcji funkcjonalnej klastra (inicjatywy klastrowej) w zakresie żywności ekologicznej. Instytut Badań nad Gospodarką Rynkową, Gdańsk.
- [19] Raport o stanie rolnictwa ekologicznego w Polsce w latach 2011-2012, IJHARS, 2013 http://www.ijhar-s.gov.pl/raporty-ianalizy.html, Internet 10.04.2014.
- [20] Smoluk-Sikorska J. (2010): The condition of organic farming and market of its products in the European Union. Journal of Agribusiness and Rural Development. 4 (18), s. 1-9.
- [21] Ustawa z dn.26 lipca 1991r.o podatku dochodowym od osób fizycznych. Dz.U. 1991 Nr 80 poz. 350.
- [22] Willer H. (2012): Key results from the survey on organic agriculture worldwide 2012 Part 2: Land use and crop data. FiBL and IFOAM, http://www.organic-world.net/ yearbook-2012presentations.html?&L=0, Internet 10.04.2014.
- [23] Zuba M. (2011): Szanse i bariery w integracji łańcucha żywności ekologicznej w Polsce. Zeszyty Naukowe WSEI. Ekonomia. 3 (1) s. 261-288.
- [24] Żakowska-Biemans S., Gutkowska K. (2003): Rynek żywności ekologicznej w Polsce i w krajach Unii Europejskiej. Wydawnictwo SGGW, Warszawa.