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USAGE AND EVALUATION OF THE ADVISORY SERVICE AMONG POLISH ORGANIC FARMERS

Summary

Organic farming is a system of agricultural production, in which a particularly strong emphasis is put on the use of natural biological processes taking place on the farm. Farming with the use of organic methods requires farmers to have extensive knowledge and to apply appropriate agricultural practices. The aim was to assess the existing advisory service and to identify the needs of developing particular guidance aspects that support the expansion of agriculture and rural areas. For this purpose, a survey has been conducted among 100 organic farmers and 17 persons providing the extension service in the field of organic farming. The results allow us to conclude that organic farmers evaluate the existing agricultural extension fairly positively and use such assistance eagerly, but the further development is required, both in terms of quality and quantity corresponding to the needs and requirements of farmers.
***Key words**: organic farming, advice, Agricultural Advisory Centre, cooperation*

WYKORZYSTANIE I OCENA DORADZTWA WŚRÓD POLSKICH ROLNIKÓW EKOLOGICZNYCH

Streszczenie

Rolnictwo ekologiczne to system produkcji rolnej, w którym szczególnie silny nacisk kładziony jest na wykorzystanie naturalnych procesów biologicznych zachodzących w obrębie gospodarstwa. Gospodarowanie metodami ekologicznymi wymaga od rolników dużej wiedzy oraz odpowiedniej praktyki rolniczej. Celem była ocena istniejącego doradztwa oraz wskazanie potrzeb rozwijania poszczególnych dziedzin poradnictwa wspierających rozwój rolnictwa i obszarów wiejskich. W tym celu przeprowadzono badania ankietowe wśród 100 rolników ekologicznych oraz 17 osób zajmujących się doradztwem w zakresie rolnictwa ekologicznego. Wyniki badań pozwalają stwierdzić, że rolnicy ekologiczni dość pozytywnie oceniają istniejące doradztwo rolnicze i chętnie korzystają z jego pomocy, jednakże niezbędny jest dalszy rozwój w tym zakresie zarówno pod względem ilościowym jak i jakościowym odpowiadający na potrzeby i wymagania rolników.
***Słowa kluczowe**: rolnictwo ekologiczne, doradztwo rolnicze, ODR, współpraca*

1. Introduction

Organic food production has been becoming more and more popular in recent years. Apart from economic criteria, it is also determined by health standards related to the preservation of biodiversity and good condition of the environment as well as its aesthetics [3, 6]. But this is not the easiest method, since it requires farmers to have extensive knowledge of environmental mechanisms, the source of which is mainly an operating agricultural extension system.

There is a consensus that agricultural extension is a process of partner interaction between two cooperating people, i.e. an advisor and a farmer [1, 9]. The agricultural extension exists in each country, though often under a different name than in Poland, but it always follows similar presumptions. For example, the term 'dissemination' is used in the United States, 'lighting the path' in the Netherlands, 'advisory work' in Germany, and 'skills development' in Spain [9].

From 1 January 2005, the organization of agricultural extension service in Poland is governed by the Act on advisory bodies of 22 October 2004 (Journal of Laws No. 251, item. 2507). Similarly to more developed countries, in Poland one can notice the initiation of forming a new extension system consisting of complementary state, local government and private institutions, producer organizations, etc. [10].

However, the main role is played by national units, such as the Agricultural Advisory Centres (ODR). A farmer using conventional production methods is able to achieve high yields of crops grown on the farm, but this is attained by the application of large quantities of chemical agents, which leads to adverse consequences for the environment and people's health [5]. Increasing ecological knowledge will raise the value of Polish farms. Therefore, at least one person dedicated to extension for organic farming is employed in each Agricultural Advisory Centre. Full success also depends on the actions to ensure the flow of information thanks to which farmers can continually develop and improve their farms [1]. Tips can be provided in various ways: through trainings, farmers' meetings, individual visits to farms and by the involvement of the media (the Internet, television, radio, newspapers, books, brochures, and leaflets). Apart from the advice related to farm production technology, agricultural extension also includes the issues related to economics and sales. The research shows that the most needful recipients of the extension services are the residents of small villages, i.e. usually small farmers [1]. It is assumed that in the future the role of agricultural extension will grow steadily. This applies in particular to the guidance arising from the reform of the Common Agricultural Policy and to environment protection counselling. In addition, agricultural extension will develop not only in the field of agriculture in the strict sense, but also in terms of services provided to the general rural population [11].

2. The aim of the paper

The aim of the paper was to evaluate the use of existing agricultural extension services in the field of organic production among Polish farmers, as well as to indicate the needs to develop individual extension fields in order to promote the growth of organic agriculture and rural areas in selected Polish regions.

An additional objective was to compare the main problems occurring in organic production as seen through the eyes of farmers and advisors.

3. Material and methods

Research material consisted of data collected from the surveys carried out in the years of 2007-2013. The survey included 100 respondents running their farms pursuant to organic farming criteria, and 17 people involved in agricultural extension. The studies among farmers were conducted in 6 provinces: Warmia-Masuria, Mazovia, Podlasie, Lublin, Lodz and Lubuskie. In addition, a survey was conducted among persons engaged in agricultural extension in Podlasie, Lublin, Warmia-Masuria, Kuyavian-Pomeranian, Mazovia, Swietokrzyskie, Lodz and Lubuskie. A questionnaire for farmers consisted of four groups of questions. They concerned the personal data of the surveyed farmers, farm characteristics, sources of knowledge used by the respondents and the need for information on organic farming. A questionnaire for advisors consisted of 13 questions, which included: information about the advisory unit which they are bound to, opinions about the sources of knowledge and the need for information from the organic farmers. The survey contained open (when the respondents were asked to express their opinions on a given subject) and closed questions. To express their opinions there was used a five-point scale, where 1 was for the highest and 5 for the lowest assessment. The collected data were developed using an Excel spreadsheet.

4. Research results

The results of surveys conducted among organic farmers and agricultural extension practitioners have been presented in bar graphs and tables. The analysis of data on the education of the surveyed farmers demonstrates considerable variation within the group examined. In particular, it is connected with the age of respondents. Regarding the education, most people having university degrees were recorded in the youngest age group of 18 to 45 years. Secondary education was predominant among the people aged 45-60 years, while agricultural producers aged > 60 years were characterized by the lowest level of education (Fig. 1).

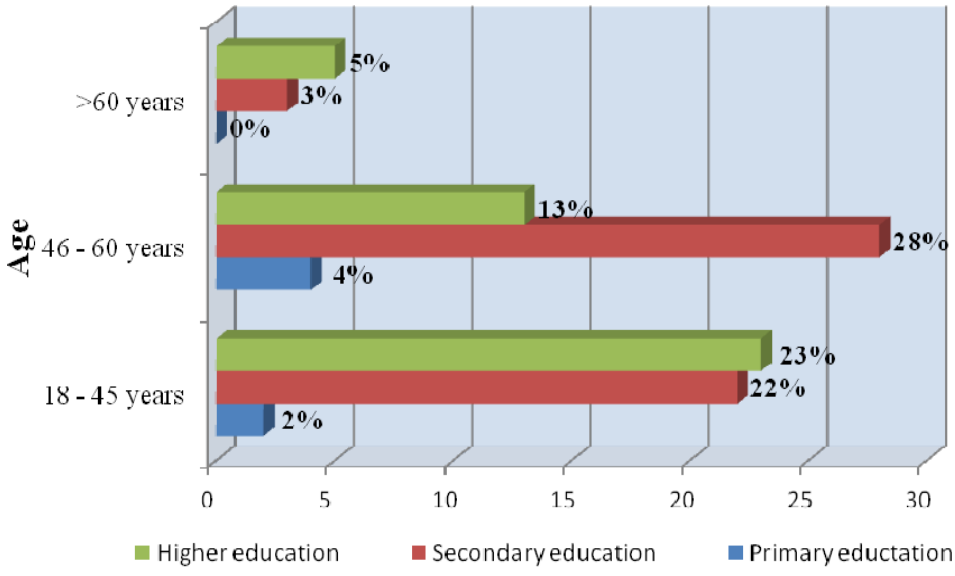

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Fig. 1. Education and age of the surveyed farmers
Rys. 1. Wykształcenie i wiek badanych rolników

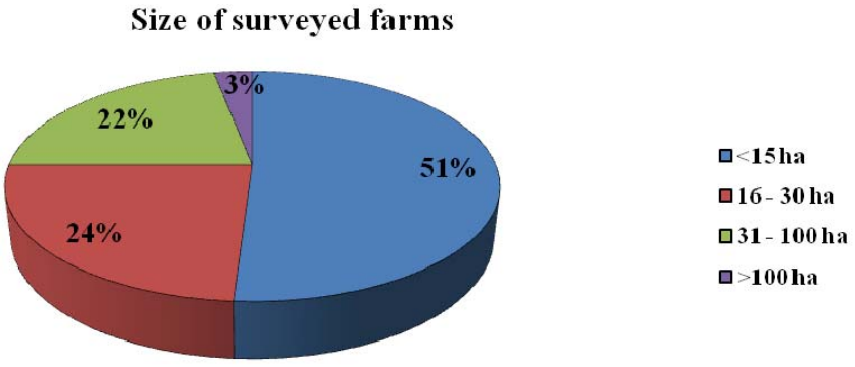

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Fig. 2. Size of the surveyed farms
Rys. 2. Wielkość ankietowanych gospodarstw

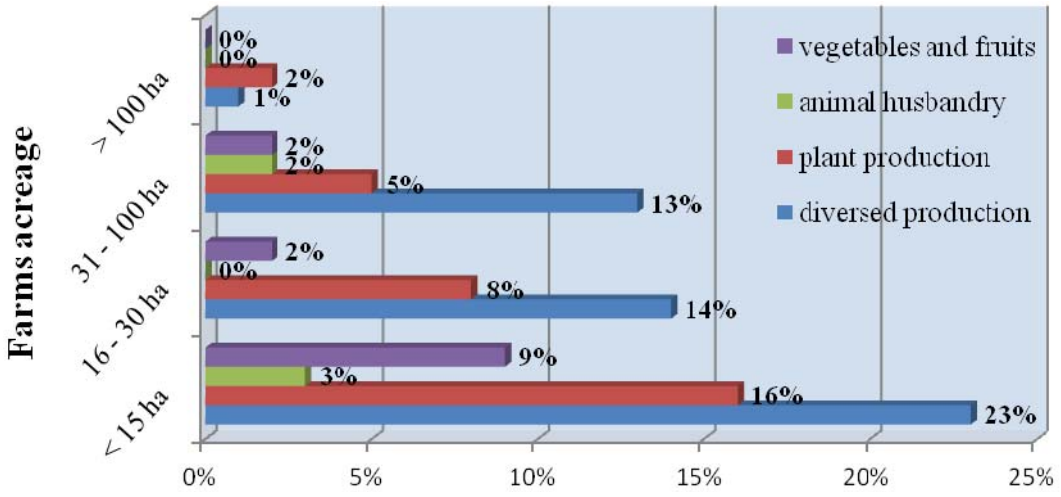

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Fig. 3. The type of production, including farm acreage
Rys. 3. Rodzaj prowadzonej produkcji z uwzględnieniem powierzchni gospodarstwa

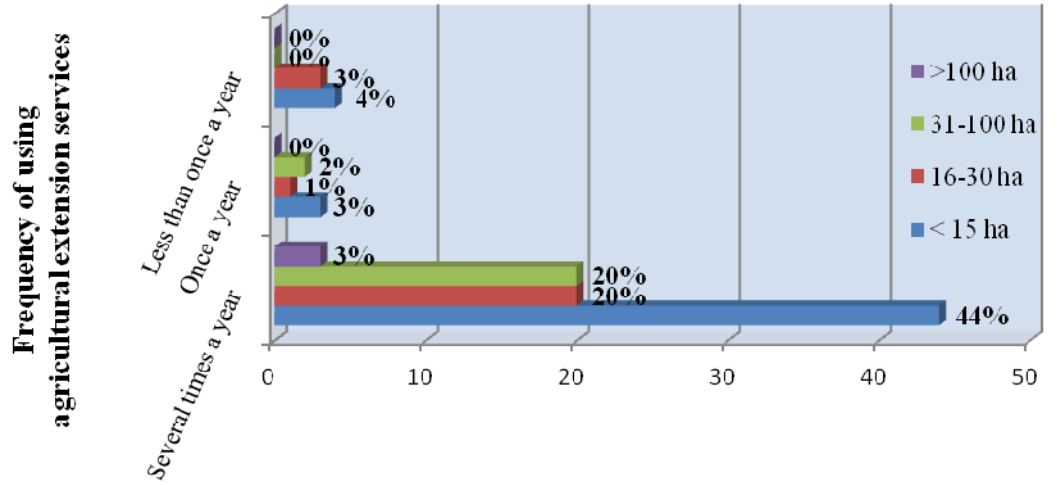

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Fig. 4. Frequency of using agricultural extension services depending on the acreage of organic farms
Rys. 4. Częstotliwość korzystania z usług doradztwa rolniczego w zależności od powierzchni gospodarstw ekologicznych

The area of farms was classified in four size ranges: <15 ha, 16-30 ha, 31-100 ha and > 100 ha. The study shows that the average organic farm size was slightly over 30 ha, but there was very high area variability ranging from 1.16 to 370 ha. The largest group (51%) were small farms up to 15 hectares. The farms of the largest production capacity and the area of 16-100 ha accounted for 46%. There were only three large-sized commercial farms over 100 ha, and all of them were created after 2001 (Fig. 2).

A half of the surveyed farmers run mixed production (51%) and these are mainly the smallest farms up to 15 hectares. 31% of the surveyed farms specialize in plant production and this is a dominant tendency of production on the largest farms > 100 ha. The most often grown group of plants were cereals, except for the farms > 100 ha, where the dominant species was walnut. Production of more demanding species of plants, such as vegetables, berries and herbs, was carried out mainly on small farms. Animal husbandry, which is the basis of balancing the nutrients circulation on the farm, involved 5% of the surveyed farms in total. These were farms of 15 and 30-100 ha, all of which were founded after 2001. The largest group of animals raised was poultry for laying and fattening and pigs (Fig. 3). The total area of agricultural land occupied by all farms amounted to more than 2,500 ha.

According to the analysis of the responses on cooperation between agricultural producers and advisors, almost all respondents use the assistance of advisors (92%), and the majority of them take advantage of such aid several times a year (87%) (Fig. 4). A similar proportion (83%) of clients asking for help repeatedly is confirmed by advisors. The farmers who visit the Agricultural Advisory Centres (ODR) most often are those running the farms up to 15 ha. 7% of farms use the extension service less than once a year. This result is made up by 8% of farms belonging to the first size group (up to 15 hectares) and 24% of farms of 16-30 ha.

The surveyed advisors claim that 83% of organic farmers use their advice regularly. At the same time, all of them agree that the farmers ask for help several times a year. The Agricultural Advisory Centres and private extension enjoy the highest popularity. Simultaneously, the respondents emphasise that organic farmers rely heavily on the opinions and advice of their acquaintances, neighbours, and friends. They often accept these tips without a professional review and evaluation, by which they can be easily misled (Fig. 12).

According to surveyed farmers, the most popular is public extension, i.e. Agricultural Advisory Centres, which services are

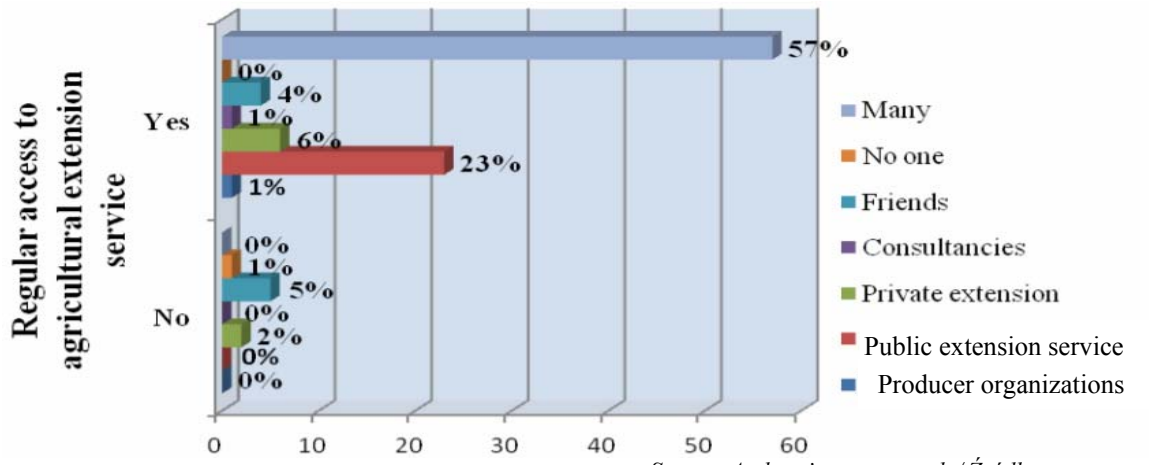

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Fig. 5. Extension sources depending on regular use of extension services as % of the whole group of respondents
Rys. 5. Źródła doradztwa w zależności od regularności korzystania z usług doradztwa jako % całej grupy

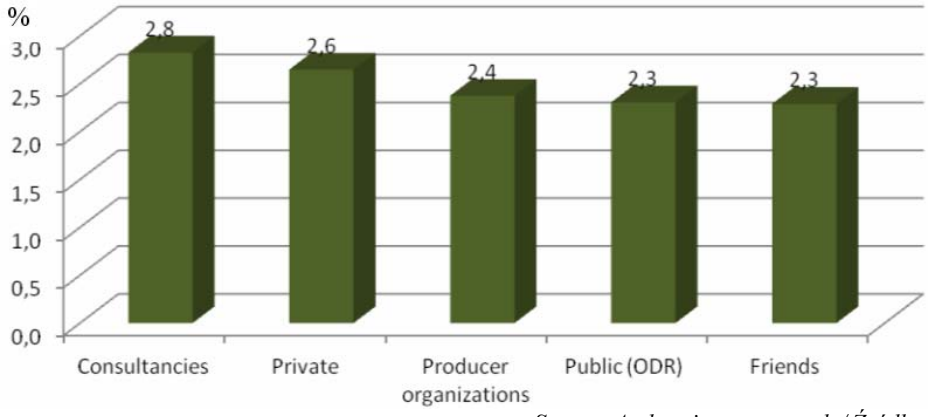

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Fig. 6. Assessment of the degree of farmers' satisfaction with extension services (scale 1-5, where 1 is the best and 5 the worst rating)
Rys. 6. Ocena stopnia zadowolenia rolników z usług doradczych (skala 1-5, gdzie: 1 – ocena najlepsza, 5 – ocena najgorsza)

used by 69% of the surveyed farmers. Also, farmers often benefit from personal extension and friend's advice (42% each). Nearly 60% of respondents declare that they use a variety of advice sources (Fig. 5).

Among those who use extension services irregularly, the most popular form of obtaining information are contacts with friends (5%) or private consulting companies (2%). There was no one using the public extension ODR service (Fig. 5).

Later in the survey, the respondents were asked to determine their satisfaction with the quality of extension they had used. In the five-point scale (1 – the highest and 5 – the lowest rating), the two information sources obtained the highest score, i.e. public extension (ODR) and friends (rating: 2.3) (Fig. 6). However, in general it should be noted that farmers give moderately positive scores to the level of extension, which draws the conclusion regarding the need to improve this area. Oral information obtained from farmers suggest that they need a specialist and individual extension, which is performed in direct relation of farmer – advisorWhile analysing the farmers' responses to the multiple choice questions regarding the search for information that could help in running an organic farm, one should emphasise their activity in this field. A source of information has been divided into personal, i.e. where a farmer contacted with other people, and impersonal – where the information did not come directly from other people. The most popular mode to extend knowledge through personal sources were one-day trainings (62%), farmers' meetings (59%), information obtained from the certification bodies (47%) and visiting other farms (40%) (Fig. 7). The farmers' meetings were rated best in the following provinces: Lodz, Lublin and Swietokrzyskie, while one-day trainings in Lodz and Lublin. Among personal sources of information, a relatively large number of respondents (47%) chose a certification body (Fig. 7). This is surprising, as the certification body is not an advisory body and does not perform such function.

The most frequently chosen impersonal source of information was the Internet (70%) and professional journals (61%). The impact of magazines was rated best by the farmers from the Kuyavian-Pomeranian, Lodz and Swietokrzyskie provinces. In contrast, only the Lublin and Swietokrzyskie respondents claimed that they did not use any online information at all.

The respondents also answered the questions related to most common problems arising in farm running. The respondents were also supposed to assess the importance of given problems in the five-point scale (1 – the most and 5 – the least important). The most significant trouble mentioned by farmers was the sale of organic products, pest and disease control, and fertilization. The least important problem was the selection of breeds adapted to organic farming (Fig. 8).

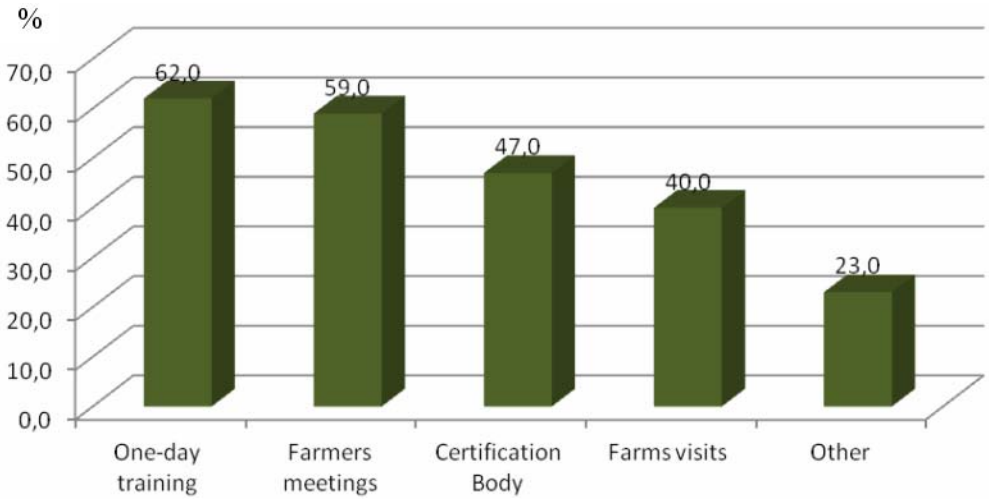

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Fig. 7. Personal sources of information used by organic farmers as % of the whole group of respondents (multiple choice)
Rys. 7. Osobowe źródła wiedzy wykorzystywane przez rolników ekologicznych jako % całej grupy respondentów (możliwość wielokrotnego wyboru)

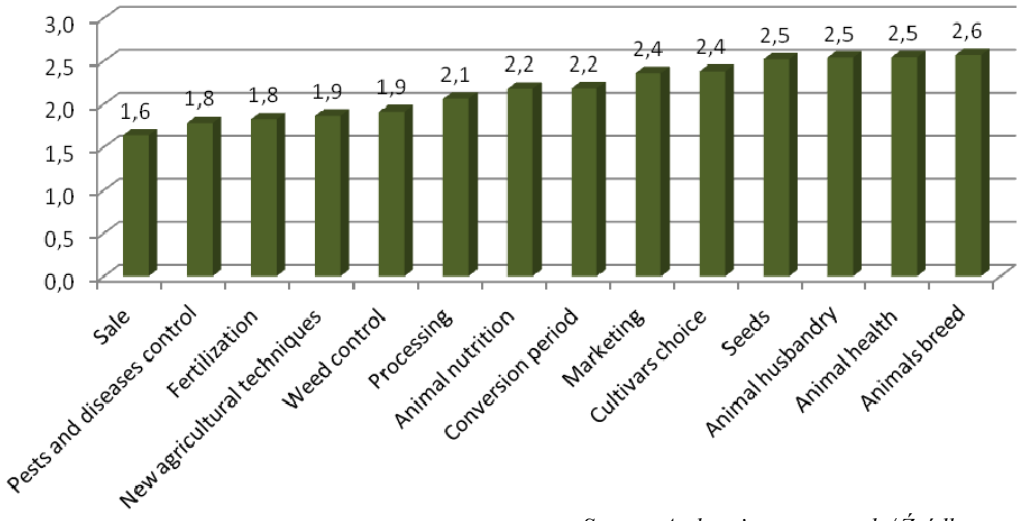

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Fig. 8. Assessment of the fields which the farmers need the information from to make decisions on the farm operation (scale 1-5, where 1 is the most and 5 the least important)
Rys. 8. Ocena dziedzin, z jakich rolnicy potrzebują informacji przy podejmowaniu decyzji w sprawie funkcjonowania gospodarstwa (skala 1-5, gdzie 1 – najważniejsza; 5 – najmniej ważna)

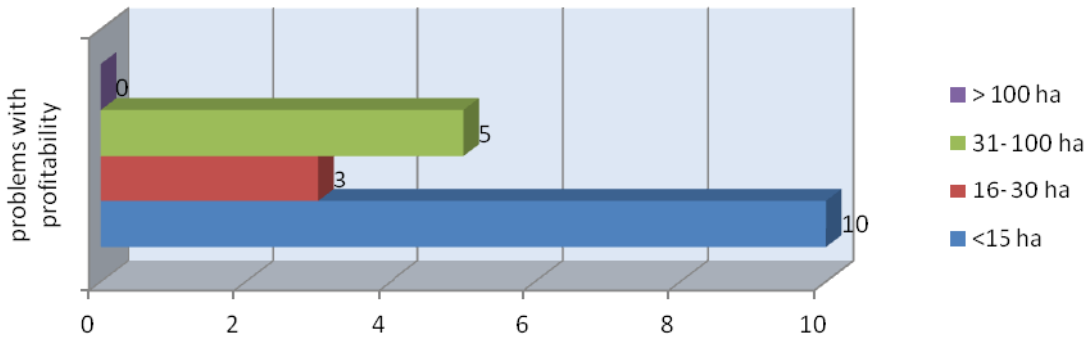

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Fig. 9. The problem of farm profitability depending on the area (as % of all farms in a particular size range)
Rys. 9. Wystąpienie problemu opłacalności gospodarstwa w zależności od jego powierzchni (jako % całej puli gospodarstw w określonym przedziale wielkości powierzchni)

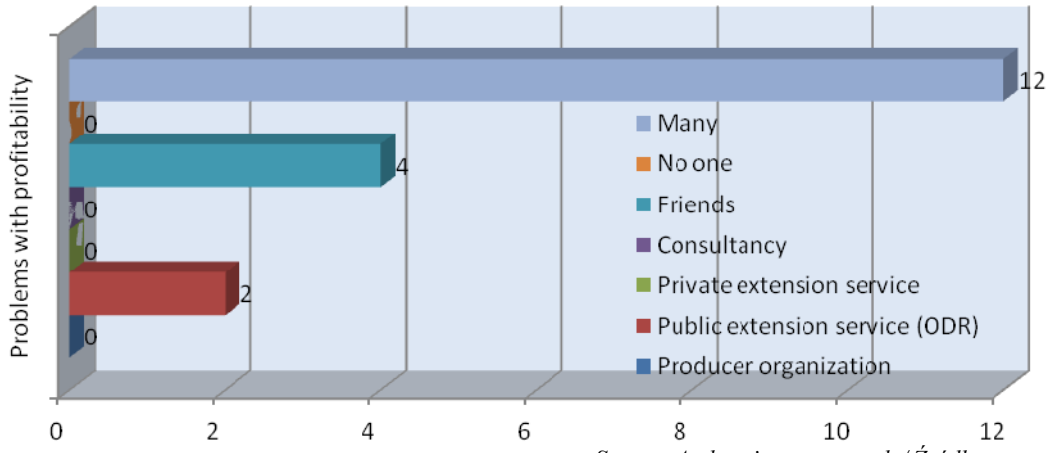

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Fig. 10. The problem of farm profitability depending on the extension sources used by farmers (as % of all farms)
Rys. 10. Wystąpienie problemu opłacalności gospodarstwa w zależności od źródeł doradztwa, z których korzystają rolnicy (jako % całej puli gospodarstw)

The problems related to the production profitability have been identified only in a small part of the surveyed farms. They mainly concerned relatively small farms <15 ha (10%), only 18% of all farms surveyed in total. None of the farms of the largest area (> 100 ha) reported this problem (Fig. 9).

The attempts to link extension sources with profitability problems have been made in a similar way. It turns out that the profitability problems occurred mainly among the farmers who use many forms of extension services. It can be assumed that they are the owners of small-sized farms (Fig. 10).

Having answered the question about the production profitability, the respondents were asked to specify their plans for the future. The majority of respondents (68%) decided to maintain the current 'status quo', while a significant part of them (37%) indicated a desire to develop the farm. The few respondents opted for the development of non-agricultural activities (2%). An analysis of their education has shown that these were persons having university degrees, involved in the mixed production on the farms up to 15 ha and the owners of farms of 16-30 ha. Both types of farms had a regular access to extension services. They also reported no problems either with complicated legislation, limited access to information, plant protection and fertilization, or the profitability of organic production. The farmers determined to start eco-farm tourism activity (2%) also indicated neither problems with farm profitability nor with the applicable rules and procedures. Both types of farms had a regular access to extension services several times a year. Mainly mixed (12%) and plant (11%) production farmers were intended to develop their farms (Fig. 11).

In order to confront the farmers' opinion on organic production extension, there has been carried out a parallel survey among advisors. As a result of the analysis of the collected material, it was found that the type of information provided to the farmers by the advisors is very diverse. A dominant area is the expertise in the field of plant (14 respondents) and livestock (12 respondents) production or general knowledge (9 respondents). None of advisors provide specialist information regarding vine production, which is undoubtedly related to the specificity of Polish agriculture. In addition to agricultural knowledge, the advisors also help farmers in the field of economics. No private extension surveyed specialises in one field of the knowledge passed on.

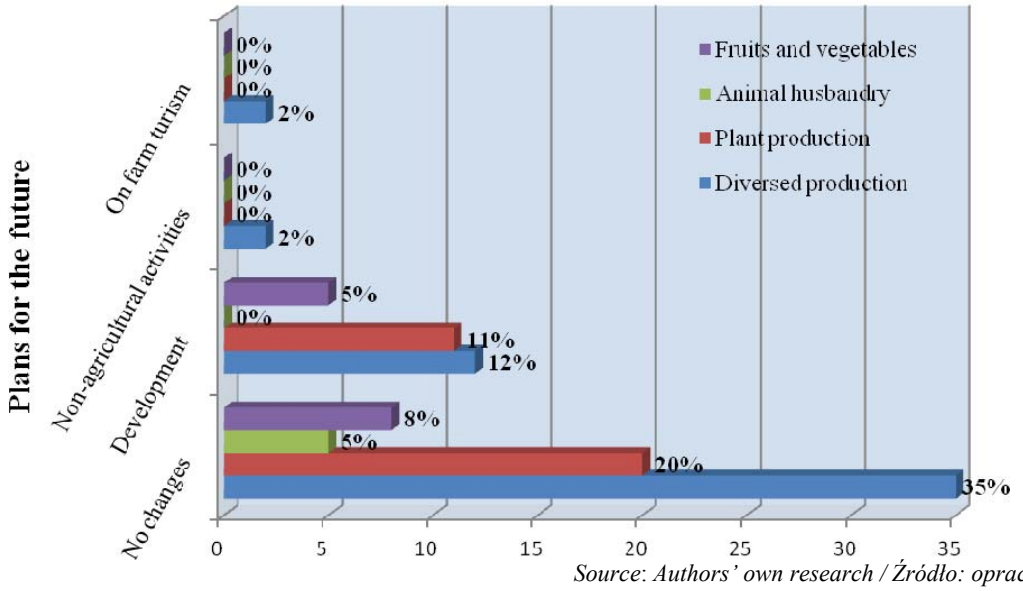

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Fig. 11. The farms' plans for the future depending on the production run (as % of all farms)
Rys. 11. Plany gospodarstw na przyszłość w zależności od prowadzonej produkcji (jako % całej puli gospodarstw)

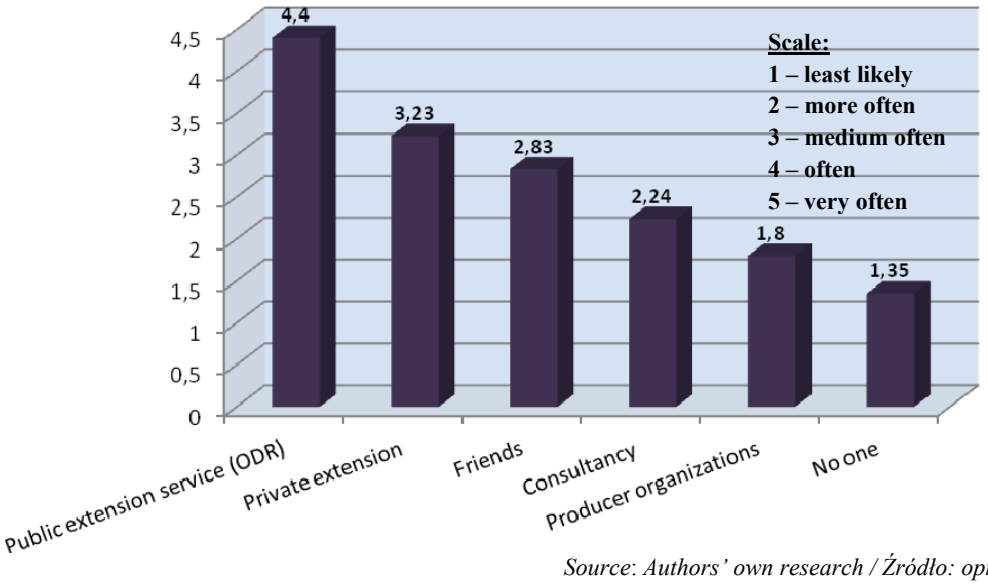

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Fig. 12. Extension sources preferably used by organic farmers in the opinion of advisors (the average of the responses according to the scale set out in the chart)

Rys. 12. Źródła doradcze, z których najchętniej korzystają rolnicy ekologiczni w opinii doradców (średnia z odpowiedzi wg skali zamieszczonej na wykresie)

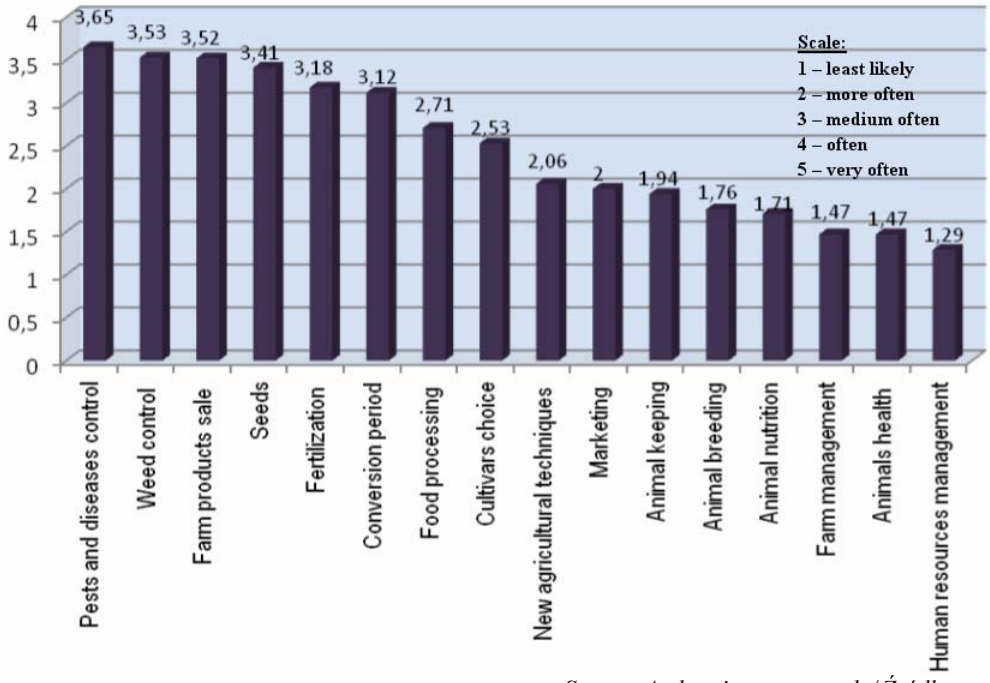

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Fig. 13. The farmers' need for information when making decisions on the farm operation, in the opinion of advisors (the average of the responses according to the scale set out in the chart)

Rys. 13. Zapotrzebowanie rolników na informacje podczas podejmowania decyzji w sprawie funkcjonowania gospodarstwa w opinii doradców (średnia z odpowiedzi wg skali zamieszczonej na wykresie)

According to the advisors surveyed, farmers – when making farming decisions – most frequently seek the information related to:

- Pest and disease control;
- Weed control;
- Sales of organic products;
- Seed production;
- Fertilization (Fig. 13).

Furthermore, the advisors point out that unclear legislation on animal production often poses a problem for farmers. According to the advisors, farmers should have greater access to information concerning the establishment and activity of the producer groups. This would significantly facilitate the sales of organic products and increase profits for farmers. The surveyed farmers have also mentioned the need for education of the extension staff, so that the rendered services meet the farmers' expectations and are fully professional.

5. Discussion on results

Farming in accordance with organic methods requires farmers to have extensive knowledge and to use appropriate agricultural practices. It is usually a set of attributes associated with a relatively young age and good education, but

the experience is basically achieved over the years, while the youngest farmers do not have it yet. In the own study, a half of the respondents are farmers under 45. The persons who have secondary education and university degrees represent over 90%, which should be considered as a very high score. In the study conducted by Bułatowicz [2] in 2005, the young people also represented a dominant group (40% of respondents were under 41), and almost two thirds of farmers had secondary education or university degrees. In similar studies conducted in the Podkarpackie province in 2006, 26% of respondents were under 40, and 45.5% of the surveyed persons had secondary education or university degrees [2].

In the presented studies, the average farm size was quite large, i.e. over 30 hectares. In the studies by Bułatowicz [2], the average farm was of 20.3 ha, that is smaller by about 10 ha, while the current average size of organic farms in Poland – according to the Agricultural and Food Quality Inspection (IJHARS) data – is 25.5 ha [4]. All farms involved in this study kept in touch with extension services and used the services of the state Agricultural Advisory Centres. For most of them (over 80%) state advisory services were the only ones which they had been cooperating with [2]. Since the research was conducted by Bułatowicz [2], the situation has changed to some degree. There has been a growing share of private extension, although the national agricultural advisory system is still dominating and supports 69% of the surveyed farmers. The farmers' interest in extension services remains at a high level. Over 80% of farmers use the extension (public or private) support a few times a season, and this fact is confirmed by both parties of cooperation. This allows us to conclude that agricultural extension is a very important tool to assist organic farming, and farmers are willing to use it. Similar importance of extension for development of organic farming has been underlined in the paper by Kucińska et al. [8].

Among personal extension sources, which the surveyed farmers draw the information from, there have been mentioned: one-day training (62%), farmers' meetings (59%), the certification bodies (47%) and visits to farms (40%). The surveyed advisors perceive this aspect similarly, but they put the farmers' meetings in the first place, while the certification bodies – in the last. According to effective regulations for the operation of certification bodies, they cannot render agricultural extension services officially. However, the body inspector's explanation of the law is often regarded by a farmer as a described form of support for organic production.

In the studies conducted in 2008, the farmers, when asked about the expected form of assistance from the agricultural advisory services, indicated that they would preferably take part in trainings and courses [10]. Similar results had been obtained in previous studies [2], where training and farm visits had been a preferable form of extension work. The results of these studies bear out that agricultural extension in Poland is growing and keeping pace with the farmers' needs.

In the studies by Bułatowicz [2], professional literature and television are predominant among impersonal information sources. The Internet, however, represents a very small percentage. In the own studies, the situation is reversed. Both the surveyed farmers and advisors have pointed out the Internet (70% of responses) as the most frequently chosen tool to search for the information needed in farming. However, the agricultural producers from two Polish regions, i.e. the Lublin and Swietokrzyskie provinces, have not used the Internet as an impersonal source of knowledge. This result may indicate that these areas of our country are the most neglected in terms of informatisation and require the local authorities work to be intensified in order to catch up on. Undoubtedly, this is related to the progressive development and the availability of media communication means. This is also confirmed by the research carried out in 2006-2008 by Kucińska [7], according to which the main carrier of information are the media, but then the Internet was chosen by significantly fewer respondents (28.8%).

In the presented surveys, the problems encountered while running organic production are similarly assessed both by farmers and advisors. Among the most important they have mentioned: sales of organic products, pest and disease control, weed control and fertilization. They have recognised the issues regarding breeds and animal health as less important, but complained at the same time about vague and complex regulations relating to the purchase, breeding and sale of animals or animal products from organic production. In the paper by Kucińska et al. [8] similar conclusions have been drawn, i.e. agrotechnical issues were in the first place, while in the second – marketing matters. In the studies by Bułatowicz [2] the farmers – assessing extension assistance in selected areas and at given stages of farm operation – reported that they had received full professional assistance at the stage of farm conversion and adaptation to new farming conditions. They evaluated much worse the access to information about marketing and investment activities and cooperation with other organic farms, and stressed their willingness to get some advice in the field of organic farming technology. One can, therefore, claim that although several years have passed, the areas where farmers have the greatest needs to increase their knowledge have not changed significantly. In turn, agricultural extension in order to meet such needs should increase the involvement in organizing trainings which cover the areas mentioned by the farmers.

In the previous study, the farmers evaluated the support offered to them not well, stressing the need for more extensive qualifications of advisory staff and greater specialization of individual advisors in the field of organic farming. They also mentioned that it was necessary to increase the access to extension services and expertise necessary to run an organic farm [2]. According to own studies, the farmers evaluate existing extension better, while the staff qualifications are not so significant problem during trainings; the problem is the access to information.

6. Conclusions

- The majority of the surveyed farmers run mixed production farms.
- A significant part of farmers are characterized by a higher or secondary level of education, yet they still need to be assisted by advisors in running an organic farm, which also determines the need for continuous development of extension services.
- The vast majority of organic farmers use extension services regularly, i.e. several times a year, and they usually ask for advice the state Agricultural Advisory Centres; there have been also observed an increasing role of private extension.
- The areas in which farmers need the extension most are: sales of products, disease and pest control, and soil fertiliza-

tion; the fields where the advice is least required are animal health and breeds (most of the farmers do not raise animals).

- The advisors are well aware of the expectations of the farmers and know what they need.
- Organic farmers give moderately positive assessments to the existing agricultural extension services and they use their help eagerly, but further development is needed in this area, both in terms of quantity and quality.
- In Poland there is a need to improve the quality of public and private extension on organic production.
- The expert and individual extension should be developed, as it is in greatest demand.
- It is necessary to increase the use of the Internet by farmers as an information and training tool.

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