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## BARRIERS TO THE DEVELOPMENT OF ORGANIC FARMING

Key words: barriers, organic farming, development

**ABSTRACT.** The goal of this research was to review the literature dedicated to barriers to the development of the organic production system. As an agricultural system combining economic and environmental objectives, organic farming has gained social acceptance. The growth of consumer interest in organic food is indicative of this. Public funds play an important role in the development of organic farming, encouraging the transition from a traditional to an organic system of farming. However, a reduced rate of growth of the number of organic farms and even a return to conventional production methods is being observed. Such farmer behavior is taking place in many EU countries. Analysis was conducted based on the results of studies conducted until now and mass statistical data. The results of analysis indicate that organic farming is encountering numerous development barriers. These are barriers related to management, market and cultural barriers, as well as barriers linked to national policy and technology. Social support for the development of organic production is also significant. There is, therefore, a need to identify barriers and adopt a strategy to support organic farming. Limiting these barriers will contribute to broadening the food offer that contains high nutritional values and encompasses the concept of environmental protection.

### INTRODUCTION

Organic farming is perceived to be a farming system most favorable to the environment and consistent with sustainable development principles. There are many benefits to such a farming method. As a form of sustainable agriculture, it receives financial support within the framework of agricultural policy. The subsidization of organic production certainly encourages transitioning from traditional to organic production. Studies show that financial support was a significant factor in the increase in the number of organic farms and increase in organic farm surface area. Transfers to organic agriculture were recognized as important to the vitality of farms, more often in new member states than in Western European countries [Zander et al.2008, Offermann et al. 2009].

The number of organic farms has been increasing for over a decade in all EU member states. Dynamic growth of organic production indicates the high interest of farmers in this farming method. In 2017, over 305 thousand agricultural producers conducted organic farming activity in EU countries, including 23.3 thousand in Poland [IJHARS 2017, Willer, Lernoud 2019].

Simultaneously, the phenomenon of departing from organic farming is being observed. Such farmer behavior is being noted in many EU countries, e.g. during the years 2007-2010, every 11th organic farm in Germany returned to conventional production [Heinze, Vogel 2012]. Hence, the attention of researchers was directed towards searching for the cause of this phenomenon and the conversion rate slowdown [Heinze, Vogel 2012, Spiemann, Nicholas 2018]. In the case of Slovakia, during the years 2004-2016, as many as 56.1% of farms abandoned organic production. Farmer decisions were dependent on EU funding. Most farmers switched to the organic system during periods of increased funding for organic farming. They usually abandoned this system after the period of subsidization. This indicates that financial incentives motivate the adoption of an ecological system, but do not stimulate the sustainability of its existence [Palsova 2019].

A similar phenomenon is now being observed in Poland. Financial support contributed to an increase in the number of organic farms but did not have a significant impact on the growth of the marketable yields of such farms [Kucińska et al. 2017]. Despite growth in the total number of organic farms, some of them are abandoning further organic farming. These changes are run very differently in each region. The most favorable natural conditions and greatest concentration of organic farms are present in the *Warmińsko-Mazurskie Voivodship* (18.2%) and *Podlaskie Voivodship* (15.6%) [GUS 2018]. Though here too, some farms have abandoned organic production after several years. This does not discourage other farmers. New farms are constantly undertaking such production, and ultimately, the number of organic farms is growing. This is confirmed by data from the Central Statistical Office for the years 2012-2017 [GUS 2013, 2018]. In the case of 6 voivodships (*Dolnośląskie, Małopolskie, Opolskie, Podkarpackie, Śląskie* and *Świętokrzyskie*), the balance is negative, and so more farms are abandoning organic production than the number of new ones popping up. Nevertheless, the change in the organic farm population inclines one to reflect on the future of this sector.

Organic farming is considered to be the most environmentally-friendly, therefore it is worth learning about limits on the development of this farming system. This knowledge will be helpful in actions stimulating the process of organic farm development and realizing the concept of agricultural sustainable development. The goal of the article was adopted in this context to review the literature dedicated to barriers to the development of the organic production system.

## MATERIAL AND METHODS

Secondary information sources were used to elaborate on the topic. Analysis was conducted based on the results of studies conducted to date, reports on organic farming in Poland and the world as well as mass statistical data from the Central Statistical Office (GUS).

## RESULTS

Organic farming has been the subject of many studies. Recently, the attention of researchers has been drawn to the causes of the relatively low growth rate of the number of organic farms. Studies are also being conducted on the subject of reasons for shifting away from organic farming and returning to conventional methods. The undertaken directions of research are oriented towards a search for barriers to organic farm development. It seems that the causes may be very similar in both cases and are numerous. There are many different classifications of these factors, but the following groups of factors impeding the development of organic farming are indicated most frequently as: (1) management-related factors, (2) the national policy on organic agriculture, (3) cultural barriers and (4) market uncertainty [Delbridge et al. 2017]. The boundaries between these groups are often rather subtle, and it is difficult to unequivocally qualify a factor into the right group. This is because many factors are coupled.

Management-related barriers are considered to be one of the main causes. This group of factors includes keeping certification documentation, which is not required in conventional production. This is treated as a serious challenge, and farmers list it as the fundamental reason for not only being unwilling to undertake organic production but also abandoning the idea completely [Veldstra et al. 2014, Stephenson et al. 2017]. The relative weakness of organizational factors are also highlighted, e.g. the lack of effective marketing and poorly developed transport networks for organic products as well as the insufficiency of information about organic production methods. As studies have shown, incomplete knowledge about the requirements of organic farming limits the utilization of a farm's production capacity in many cases [Shafrii et al. 2010]. Meanwhile, producing, according to the principles of environmentally-friendly agriculture has nothing to do with a primitive farming method, quite the opposite is true as it requires the latest knowledge regarding nature. This is confirmed by other studies, which show that knowledge on both sides, the consumer and producer, as well as the acceptance of innovation are the most important determinants of organic farming development. The absence of these factors constitutes a significant barrier to the development of this production system [Wheeler 2008, Sharifi et al. 2010]. Here, the role of scientific research and the transfer of knowledge into practice should be emphasized [Marasteanu, Jaenicke 2016]. This is a certain challenge for both scientific institutions and consulting services. This problem is being discussed and studies are being undertaken on the subject of obstacles to the implementation of knowledge in practice. The results of studies conducted in Denmark indicate that, despite the fact that farmers know perfectly well how to manage a farm from an agritechnical perspective (proper crop rotation, nutrient management), they consciously do not apply or are disinclined to apply all organic production recommendations [Noe et al. 2015]. They cite economic reasons as justification for this decision, and so, in their decisions, they always or almost always tend towards production profitability. Hence, they chose crops that do not require incurring additional costs. Such behavior by farmers should be considered rational considering price fluctuations on the market. The opinion that the economic aspect of production is the most important from a farmer's perspective is valid, regardless of the convictions as to the benefits of organic products and the beneficial influence of this

farming system on the environment. In the case of small farms, the conversion to solely organic farming does not provide attractive prospects for farm households [Eyhorn et al. 2018]. This economic aspect is also considered important by organic farmers in Poland. The most frequently cited reason for starting organic production was the possibility of obtaining subsidies (78.6%) and increasing farm income [IRWiR PAN 2017].

Agricultural policy is among the more important factors in the development of organic farming. The system of subsidies for organic farming is among the group of factors related to national policy. The possibility of obtaining subsidies was the main criterion for choosing an organic production system in Poland [IRWiR PAN 2017]. The results of studies concerning public subsidies for organic production confirm their significant role in improving the profitability of organic farms. This pertains to both Western and Eastern European countries [Zander et al. 2008, Offerman et al. 2009, Palsova 2019]. Not just the role of subsidies to organic farming but also the role of direct subsidies is being highlighted. This is an important aspect of evaluating the profitability of organic farms since, in this case, farmers receive funds from two sources. Financial support will continue to play an important role in shaping the economic situation of organic farmers and should be maintained. However, as authors note, growth of organic farming cannot be sought solely through increasing subsidies. To reduce dependency on state transfers, the authors propose to apply an integrated support system, including support for processing and marketing activities as well as support for collaboration between farmers in order to increase the demand for organic products. Other authors also postulate, besides limiting market barriers, the introduction of supplementary payments for insurance as a risk management tool [Brzezina et al. 2017]. Farmer opinions on state support for organic farming are rather varied, although there is a consensus that insufficient support constitutes a significant barrier [Wheeler 2008, Sharifi et al. 2010]. There is still no answer to the question concerning what level of support would be considered satisfactory. This aspect requires detailed research.

Cultural and ideological factors play an important role, acting as stimulants or des-timulants in decisions on whether to choose the organic farming system. It is unclear, however, whether ideological factors gain in significance over time and as the market for organic products develops. Other studies confirm the opinion that farmers with distinctly pro-environmental attitudes are more inclined to act in an environmentally-friendly way and are more likely to adopt organic farming [Best 2010]. The results of studies also indicate the significance of social support for the development of organic production [Brock, Barham 2013]. This social support is now being put on display with the application of new technologies. In Filipino agriculture, both access to information on organic products and the speed of its propagation on social networks were recognized as more important factors in the development of organic farms [Olabisi et al. 2015]. Similar results were obtained in studies conducted in Germany. A farmer's pro-environmental attitude and social support expressed on social networks were considered motivational factors for adopting organic farming. And conversely, a farmer's lack of conviction as to the benefits (to the environment and him/herself) of organic farming and the skeptical opinion of social networks are indicated as barriers to adopting organic farming [Spiemann, Nicholas 2018]. In this

case, financial support was not in the foreground. The positive influence of local leaders in disseminating information about organic farming is also observed, thus influencing the decisions of farmers with regard to using environmentally-friendly production methods [Rittinon, Uruyos 2017].

Market barriers include uncertainty concerning the future growth of demand for organic products. The consumption of organic products is mainly determined by their price and consumer income [Turhan 2019]. The majority of consumers consider organic products to be too expensive and difficult to obtain, which also hinders the development of organic farming [O'Donovan, McCarthy 2002, Hughner et al. 2007, Aertsens et al. 2009, Sharifi et al 2010]. Consumers are willing to accept a price ~10% higher than that of traditional produce [Zamkova, Blaskova 2013]. Research conducted by the Institute of Rural and Agricultural Development of the Polish Academy of Sciences shows that the lack of markets and problems with the sale of organic products constitute the most important barriers in the development of organic farming in Poland [IRWiR PAN 2017].

Regional products are also offered on the market of food products, competing against organic products. A significant share of consumers prefer locally produced food products (with lower prices) to certified organic products [Costanigro et al. 2011]. Technological barriers are also frequently indicated. In farms without animal production, a problem with access to organic fertilizers may arise, e.g. in Denmark, organic farms are strongly dependent on the import of manure from conventional farms [Noe et al.2015].

## SUMMARY

Organic farming has undergone dynamic growth in recent years. Increased demand for organic products and support for this farming system through agricultural policy has fostered this trend. This indicates social acceptance for environmentally-friendly methods of production. Despite favorable natural conditions for the development of organic farming in many countries, including Poland, this sector faces numerous challenges. The conducted analysis indicates that it is encountering numerous barriers to development. Some of these barriers have already been identified, although many more still remain, and what is a truly important factor is, for example, the personal situation of the farmer and his family. Regardless of previous knowledge, this is certainly an interesting topic that requires further research.

Experience with the functioning of organic farming to date indicates a need to support this farming system in many countries. As part of national policies of individual countries, action is being taken to create the conditions for the development of organic production. In the case of Poland, support for organic farming is a part of the "Framework Action Plan for Food and Organic Farming in Poland for 2014-2020" adopted by the Ministry of Agriculture and Rural Development. As part of the implementation of this plan, financial support for organic farms is being continued. Research is also being financed to improve production technology and other activities such as training, consultations, advisory services, cooperation with organizations in the field of organic food promotion, etc. [MRiRW 2018].

To sum up, there is a need for the continuous monitoring of barriers and restrictions in the development of organic production. All factors shaping the conditions for the development of organic production require verification. Knowledge of these factors is the foundation for shaping the sustainable development policy, which contributes to a more complete utilization of agricultural resources, the improvement of rural living conditions and environmental protection.

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**BARIERY ROZWOJU ROLNICTWA EKOLOGICZNEGO**

Słowa kluczowe: bariery, rolnictwo ekologiczne, rozwój

**ABSTRAKT**

Celem artykułu jest przegląd literatury poświęconej barierom rozwoju ekologicznego systemu produkcji. Rolnictwo ekologiczne, jako system gospodarowania łączący cele ekonomiczne i środowiskowe zyskało społeczną akceptację. Świadczy o tym wzrost zainteresowania konsumentów żywnością ekologiczną. Ważną rolę w rozwoju produkcji ekologicznej spełniają środki publiczne, które są zachętą do przejścia z tradycyjnego na ekologiczny system gospodarowania. Obserwuje się jednak zmniejszone tempo wzrostu liczby gospodarstw ekologicznych, a nawet powrót do konwencjonalnych metod produkcji. Takie zachowania rolników obserwuje się w wielu państwach Unii Europejskiej. Analizę przeprowadzono na podstawie wyników dotychczasowych badań i danych statystyki masowej. Wyniki analizy wskazują, że rolnictwo ekologiczne napotyka na liczne bariery rozwoju. Są to bariery związane z zarządzaniem, bariery rynkowe i kulturowe oraz związane z polityką państwa, a także technologiczne. Istotne znaczenie ma również wsparcie społeczne dla rozwoju produkcji ekologicznej. Istnieje zatem potrzeba identyfikacji barier i przyjęcie strategii wsparcia rolnictwa ekologicznego. Ograniczanie tych barier przyczyni się do poszerzenia oferty żywności o wysokich walorach odżywczych i ochrony środowiska naturalnego.

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