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IS ORGANIC FARMING BENEFICIAL TO POLISH FARMERS? A CASE STUDY FOR MAŁOPOLSKA

Paulina CADER

University of Agriculture in Kraków; paulina.cader@urk.edu.pl, ORCID: 0009-0009-6954-8975

Purpose: The aim of the study was to diagnose the impact of organic production on the economic and social situation of farmers and to identify the reasons for the low popularity of organic farming in Poland.
Design/methodology/approach: The survey was conducted between February and August 2024 in the Lesser Poland (Małopolska) province of Poland among 104 farmers engaged in organic and conventional production. A survey method was used, conducted by means of a questionnaire that includes questions about the financial situation, motivations for choosing a production system, and the barriers to and challenges of running an organic farm.
Findings: The results of the study showed that organic farmers have a higher level of financial satisfaction and greater economic stability compared to conventional farmers. The main barriers are high production costs, complicated certification procedures, and a limited market.
Research limitations/implications: The study's conclusions indicate that the development of organic farming in Poland requires coordinated action by public institutions, involving simplification of certification processes, increasing financial support, and conducting effective campaigns to promote organic products. Data analysis was conducted using the χ^2 test to determine the relationship between farm type and socioeconomic variables.
Originality/value: The article addresses promoting public awareness of the benefits of organic food production, which is key to increasing demand for organic products and improving the economic situation of farmers.
Keywords: organic agriculture, agricultural policy, economics of agricultural production, prosperity.
Category of the paper: Research paper.

1. Introduction

Organic farming can be understood as a system of agricultural production based on natural processes and raw materials, whose main goal is to provide high-quality food with minimal environmental impact. Its methods promote responsible use of energy and natural resources,

the protection of biodiversity, maintaining ecological balance, improving soil fertility, and maintaining good water quality. In addition, organic farming regulations place great emphasis on animal welfare, requiring farmers to ensure that animals are kept under conditions that meet their natural behavioural needs. European Union regulations in this area ensure uniform standards for organic production throughout the EU. Their goal is not only to meet the growing demand for certified organic products but also to create a fair market for farmers, distributors, and dealers (European Commission, Agriculture and Rural Development, n.d.).

In the sixth report of the Intergovernmental Panel on Climate Change (IPCC), published in the second half of 2021, the authors clearly state that there is an almost direct relationship between cumulative greenhouse gas (GHG) emissions from human activities and global warming (Wrzaszcz, Prandecki, 2020). According to their assessment, in order to stabilize the anthropogenic increase in global temperature at current levels, it is necessary to achieve net-zero (CO_2) emissions and significantly reduce emissions of other greenhouse gases. The transition to a green economy that is environmentally friendly and enables the reduction of GHG emissions is, in the context of ongoing climate change, one of the most important economic and environmental challenges of today's world (Wrzaszcz, Prandecki, 2020). Organic farming has certain economic, social, and environmental benefits. It is one of the components of the sustainable development of rural areas. In Poland, due to the fragmented agrarian structure and the low use of chemicals during tillage, the conditions for progress in the existing production system are favourable. Nevertheless, the further development of organic farming depends mainly on the demand for organic food. According to consumer surveys, organic products command the highest price on the market. In addition, the determinant of the structure and volume of demand is perceived by consumers as high.

Organic agriculture in developed countries plays an important economic, social, and environmental role, and contributes to the achievement of Sustainable Development Goals (SDGs), as well as realization of the Green Deal strategy. Agricultural practices must and will change to meet the United Nations Sustainable Development Goals. Sustainable agriculture and food systems should, in addition to providing adequate nutritious food for all, minimize harmful effects on the environment and also provide farmers with decent living conditions. Transformational models, such as organic farming, offer numerous benefits – improving soil quality, reducing pollution, increasing biodiversity, and also improving farmers' incomes. In many cases, however, crop yields are lower, raising questions about the ability to ensure global food security. Organic farming, while not a perfect system, is a useful part of such a transformation (Eyhorn et al., 2019). Organic farming systems are more cost-effective, environmentally friendly, and provide high-quality food with fewer pesticide residues, and sometimes are completely free of them. A combination of organic and innovative farming systems is needed for sustainable production, Preliminary research suggests that organic farming improves environmental quality and offers additional social benefits, such as increased biodiversity and improved soil quality. Organic farming, despite its controversial past,

is increasingly recognized as a key element in the pursuit of sustainable development. Its growing presence in the grocery market - both in the food and beverage segments - is evidence of growing consumer interest in organic solutions (Reganold, Wachter, 2016).

Organic farming contributes to the popularization of the production and consumption of quality food and the promotion of a healthy lifestyle (Brzezina et al., 2017). The growing interest in organic food production is making the public increasingly aware of issues related to food safety and its economic and environmental impact. This is leading to an increase in demand for healthy food, which is produced by farms that do not use mineral fertilizers and pesticides.

Consumers are choosing to buy "eco" products for a number of reasons, primarily health consciousness (Das et al., 2020). Perceived naturalness as well as environmental concerns and ethical motivations are also important factors in the selection of the aforementioned products. Intrinsic motivation, integrity and external regulation, environmental concerns and trust significantly influence consumers' propensity to buy organic food (Tandon et al., 2020). Soroka and Wojciechowska-Solis (2019) provide empirical evidence on consumer motivation to purchase organic food, with a focus on the influence of lifestyle factors. The survey identified key reasons for choosing organic products: lack of harmful substances and health benefits, especially among physically active people. Among less active consumers, taste is a priority.

Savi (2024) reviewed the factors influencing consumers' organic food purchasing behaviour. He emphasizes that the growing demand for organic food is driven by concerns about health and nutrition, great taste and environmental awareness. The study identified three key dimensions influencing consumer decisions: price, time and eco-labelling. In addition, it was noted that consumers with higher education and income levels are more likely to recognize the benefits of organic food and are willing to pay a higher price for it, especially those who are environmentally conscious and believe that their choices will have an impact on future generations.

A study by Wojciechowska-Solis and Barska (2021) shows that consumers choose to buy organic products mainly because of their health benefits, high nutritional content and lack of harmful additives and preservatives. Growing environmental awareness also plays an important role - consumers are increasingly paying attention to the impact of food production on the environment, animal welfare and social aspects.

The literature identifies a number of factors influencing the perceived credibility of organic food, key among them being labelling, certification, place of purchase, country of origin, brand, price, communication, product category and packaging. Of these factors, labelling, certification and country of origin have been studied in detail. Certification and label indications play a key role in building consumer confidence in organic foods. They provide a guarantee of the quality and authenticity of the product, which influences the perception of its value and purchasing decisions. Consumer confidence in organic food is largely based on the existence of recognizable labels and certifications that provide confirmation of compliance with organic

production standards. The perception of a product has a significant impact on purchase intentions and consumption decisions, as highlighted by studies showing a strong link between product credibility and consumers' willingness to choose organic food. Transparency in terms of certification, labelling and country of origin strengthens confidence in the product, which in turn increases the likelihood of buying it (Rejman et al., 2023).

Based on the literature review, it is possible to distinguish several major categories of organic food consumers whose market behaviour is driven by awareness of the benefits of choosing organic products, thus contributing to sustainable development. There are four groups of organic consumers: Eco-activists - driven by concern for their and their family's health, choose organic foods to avoid artificial additives and potentially harmful substances. Eco-dietitians - focus on the nutritional value of products, treating organic food as part of a healthy diet to prevent disease. Eco-traditionalists - choose organic products primarily for their better, more natural taste compared to conventional foods. Eco-innovators - consumers who are driven by environmental concerns and view the choice of organic products as a conscious act to protect the planet (Wojciechowska-Solis, Barska, 2021). Environmental concerns are also an important factor in the selection of the aforementioned products. Consumer awareness of sustainability and the benefits of organic farming is growing. Despite its many advantages, the introduction of organic farming comes with some technological limitations and other difficulties (Łuczka, 2023).

The benefits of organic production, combined with consumer expectations and the construction of the necessary legal and institutional framework are resulting in the development of organic farming in the European Union. Analysing data on the area of farmland cultivated organically in the European Union, there is a clear upward trend (Table 1). In 2022, about 17 million hectares of land in the EU were dedicated to organic crops, accounting for 10.5% of the total agricultural area. Switzerland saw an increase of 52.8%, increasing its organic area to 185 224 hectares. Norway, in contrast, was one of the few countries to see a decline in organic acreage, down 16.7%.

Poland stands out in the European Union as the only member country where the area of land devoted to organic farming has shrunk over the period from 2012 to 2022. During this period, the acreage of organic crops has decreased by 15.4% - from 655 459 hectares in 2012 to 554 632 hectares in 2022. This phenomenon is worrying, especially in the context of the pan-European growth trend, where most countries are rapidly expanding organic farming. Examples include France, where organic acreage grew by 178.9%, and Portugal, which saw an increase of as much as 278.4%. Even countries such as Romania (+123.6%) and Hungary (+145.4%) have significantly increased their organic areas (Fig. 1). The observed regression in Poland prompts key research questions: Why are Polish farmers not seeing the benefits of organic farming?; Does Poland lack effective regulations to support organic farming?; Is Poland inefficiently managing funds from the Rural Development Programme (RDP)?; Are farmers in Poland unable to make a living from organic farming?; and, Is a lack of satisfaction with organic farming leading farmers to abandon the system?

Table 1.
Total area of organically farmed agricultural land in the EU (in ha.)

Countries	Organic area (ha)		2012-22 (% change)
	2012	2022	
EU	9 457 886	16 898 463	78.7
Belgium	59 718	103 437	73.2
Bulgaria	39 138	110 441	182.2
Czechia	468 670	563 527	20.2
Denmark	194 706	300 057	54.1
Germany	959 832	1 630 984	69.9
Estonia	142 065	231 011	62.6
Ireland	52 793	95 701	81.3
Greece	462 618	924 853	99.9
Spain	1 756 548	2 675 331	52.3
France	1 030 881	2 875 500	178.9
Croatia	31 904	129 374	305.5
Italy	1 167 362	2 349 475	101.3
Cyprus	3 923	7 749	97.5
Latvia	195 658	312 820	59.9
Lithuania	156 539	271 329	73.3
Luxembourg	4 130	8 255	99.9
Hungary (1)	130 607	320 517	145.4
Malta	37	66	78.4
Netherlands	48 038	80 086	66.7
Austria (2)	533 230	705 800	32.4
Poland	655 499	554 632	-15.4
Portugal	200 833	759 977	278.4
Romania	288 261	644 520	123.6
Slovenia	35 101	53 202	51.6
Slovakia	164 360	253 156	54.0
Finland	197 751	339 459	71.7
Sweden	477 684	597 204	25.0

*(1) Break in time series, 2022.
(2) Austria: 2022 data taken directly taken from Federal Ministry of Agriculture, Forestry, Regions and Water Management.

Source:(https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Developments_in_organic_farming).

The purpose of the article is to diagnose the impact of organic production on the economic and social situation of farmers and to identify the reasons for the low popularity of organic farming in Poland.

2. Economic viability of organic agriculture

The analysis of available texts, data and documents shows that organic farming is a reasonable economic alternative for farmers. One can see a clear increase in interest in this form of farming practically throughout Europe, which is confirmed by numerous statistics and the development of organic certification. However, Poland stands out from the rest of Europe, as interest in organic farming is not as widespread as in most European countries.

The growing number of organic farms is due to two main reasons. The first is the growing public awareness of healthy eating, while the second factor is the financial subsidies that these farms receive. Under the conditions of a market economy, where the demand and supply of organic products are shaped by the market, it is important that these farms are managed in a rational way, which is a complicated task and subject to dynamic changes. Profitability in this system depends on a number of internal factors, such as soil quality, available equipment, resources and labour, as well as external factors, such as location in relation to markets and European Union agricultural policy and national regulations. In addition to the farmer's ecological awareness, the key factor prompting a change in the farming model and a shift to organic production is primarily the subsidies available under programmes supporting "organic farming". Farmers can obtain detailed information and preliminary analyses from agricultural consultants who work at provincial Agricultural Advisory Centres and their local branches (Sazońska et al., 2021).

Reganold and Wachter (2016) showed that no agricultural method achieves the level of sustainability that organic farming does, whose priority is not just to maximize yields, but to provide safe and valuable food produced with minimal environmental impact. Organic farming also strives for economic viability while adhering to a social standard. A comparative analysis of conventional and organic production methods revealed serious drawbacks of conventional agriculture, such as high-water pollution, ecosystem instability, soil deterioration and poor biodiversity. A farmer, when deciding to implement a 5-year organic plan within the framework of certain packages and their variants, must follow the rules provided for these packages. To be eligible for organic payments, a farmer must have an ID number assigned by the ARMA, have at least 1 hectare of farmland and commit to an agri-environmental plan. In the event that one farmer alone is unable to meet these conditions, he can do so jointly with other farmers. Production under all packages must be carried out in accordance with the regulations on organic farming, and meet the requirements for the production of organic products. The main sources of support for organic production in Poland are shown in Table 2 (Sazońska et al., 2021).

Table 2.
Amount of organic payment rates from March 2024

No.	Organic farming packages	Variants of organic farming	Payment rates
1.	Package 1 Agricultural crops in conversion		1 697 PLN/ha
2.	Package 2 Vegetable crops in conversion		3 021 PLN/ha
3.	Package 3 Herbaceous crops in conversion		1 673 PLN/ha
4.	Package 4 Orchard crops in conversion	4.1.1 Primary orchard crops in conversion	1 856 PLN/ha
		4.1.2 Berry crops in conversion	2 495 PLN/ha
		4.2 Extensive orchard crops in conversion	1 326 PLN/ha
5.	Package 5 Forage crops on arable land in conversion		1 638 PLN/ha
6.	Package 6 Permanent grassland in conversion		1 043 PLN/ha
7.	Package 7 Post-conversion agricultural crops		1 571 PLN/ha
8.	Package 8 Post-conversion vegetable crops		2 391 PLN/ha
9.	Package 9 Post-conversion herb crops		1 856 PLN/ha

Cont. table 2.

10.	Package 10 Orchard crops after the conversion period	10.1.1 Basic post-conversion orchard crops	1 961 PLN/ha
		10.1.2 Post-conversion berry crops	2 213 PLN/ha
		10.2 Extensive orchard cultivation after the conversion period	1 326 PLN/ha
11.	Package 11 Forage crops on arable land after the conversion period		1 504 PLN/ha
12.	Package 12 Permanent grassland after conversion period		1 043 PLN/ha
13.	Package 13 Premium for sustainable crop-animal production		573 PLN/ha

Source: Stawki płatności - Agencja Restrukturyzacji i Modernizacji Rolnictwa - Portal Gov.pl (www.gov.pl).

Within the framework of the "Organic Farming" programme, the farmer has the opportunity to adapt three different types of organic commitments, which group packages according to the type of agricultural land used, namely:

- commitment on arable land (packages 1, 2, 3, 5, 7, 8, 9, 11 and variants 4.1.2. and 10.1.2.),
- commitment in orchards (options 4.1.1., 4.2., 10.1.1., 10.2.),
- commitment on permanent grassland (packages 6 and 12).

A farmer has the opportunity to simultaneously implement more than one commitment, including more than one commitment of the same type (for example, two commitments on arable land). Under organic payments, the principle of degressivity applies: 100% of the basic rate for an area from 0.10 ha to 50 ha, 75% of the basic rate for an area above 50 ha to 100 ha, and 60% of the basic rate for an area above 100 ha (Sazońska et al., 2021).

However, the growing popularity of organic and healthy lifestyles is helping to keep prices of organic products high. Consumers are increasingly willing to pay a higher price for organic products, especially when the product has quality certifications and geographical indications. For example, a study on clementine cultivation in Italy found that organic methods were associated with better economic performance, mainly due to the price premium obtained for organic and GI-protected products (Falcone et al., 2020). A systematic analysis of organic olive growing in Spain confirms the economic viability of organic practices, indicating their potential benefits in terms of profitability and overall economic performance compared to conventional farming systems (Martín-García et al., 2023).

The transition to organic farming in the European Union poses significant challenges. Farmers using organic farming methods often face limited nutrient availability, making it difficult to properly nourish plants. Additionally, pest and weed control can be more demanding under organic conditions, which can consequently result in lower yields compared to conventionally grown crops (Zieliński et al., 2024). Financial support under the Common Agricultural Policy (CAP) in the form of subsidies has played an important role in overcoming the initial difficulties associated with organic farming. These measures have helped to increase the economic stability of organic farms and reduce the income gap with conventional agriculture, facilitating the implementation of more sustainable farming practices (Guth et al., 2020). Financial incentives and subsidies contribute significantly to improving economic

performance in organic farming, increasing the competitiveness of organic products on the market (Łuczka-Bakuła et al., 2021).

In the context of the European Union, support under the Common Agricultural Policy (CAP) has played a key role in improving the profitability of organic farms. CAP subsidies help narrow the income gap between organic and conventional farms, making it easier for farmers to shift to more sustainable farming practices. Despite higher prices, demand for organic food remains high. Studies show a strong link between consumers' willingness to pay a higher price and organic farmers' incomes, which translates into greater producer satisfaction and profitability (Pavlovich, 2020). Nonetheless, disparities in market access and competition from conventional agriculture remain significant challenges, underscoring the need for further policy and market support to increase the viability and competitiveness of organic products (Ghanghas et al., 2021).

3. Research methodology and characteristics of the study group

The survey was conducted between February and August 2024. The general population of the survey was defined as farmers of Małopolska. The survey was conducted among certified organic farmers and conventional farmers. The survey population amounted to n = 104 units. The sampling was purposive, and the participation of both certified and non-certified farmers was assumed. A snowball mechanism was used, whereby an initially selected small group of respondents is surveyed and each member of this group identifies (recommends) other individuals belonging to the general population to be surveyed further (Szreder, 2004). The decision for this type of sampling was due to specific conditions in the survey population, which is characterized by distrust of survey research.

The research tool was a survey questionnaire, which included 21 questions.

The questionnaire was divided into sections: 5 metric questions, 1 question filtering the approach to agricultural production, and 15 questions on the socioeconomic conditions of the agricultural production implemented. The survey included 14 single-choice questions, 1 open-ended question and 4 cafeteria questions. The questions pertained to the evaluation of job satisfaction, assessment of the financial situation, additional income from non-agricultural activities and perception of the development of organic farming demand on the market. The survey used a semantic scale.

Survey responses were collected and then analysed using Microsoft Excel 2016. The results of the survey were presented in the form of tables and figures. The χ^2 test (Słowińska, 2019) was used for statistical analysis. It was used to test the relationship between the respondents' answers and the criterion, which was the system of farming, assuming a significance level of $\alpha \leq 0.05$. Before calculations were made, the homogeneity of variance was tested with the

Shapiro-Wilk test and the normality of the distribution with Levene's test. 104 respondents participated in the survey. The detailed composition of the sample is shown in Table 3.

Table 3.
Characteristics of the study group

Characteristics		Share [%]	Group of farmers	
			Organic agriculture	Conventional agriculture
Gender	Women	38.5	61.5	30.8
	Men	61.5	38.5	69.2
Age [years]	Under 18	3.8	0	5.1
	18-25	30.8	30.8	30.8
	26-35	30.8	53.9	23.1
	36-45	13.5	7.7	15.4
	46-60	15.4	7.7	17.8
	Over 60	5.8	0	7.7
Education	Primary	9.6	7.7	10.3
	Vocational	21.2	0	28.1
	Secondary	36.5	23.1	41

Source: own research.

The analysis using the chi-square test shows that all differences between conventional farmers and those using organic production methods are statistically significant. This means that the observed differences are not random, but indicate real relationships between the variables under study.

Several differences between organic and conventional farmers can be discerned in the sample. Above all, organic farmers are distinguished by a slightly higher level of education. Increased organic awareness, openness to innovation and better knowledge of regulations related to certification may be due to education, which translates into their willingness to farm organically. In addition, there is an apparent trend toward higher incomes among organic farmers. This is a result of the ability to obtain higher prices for organic products, which are increasingly popular in the market, especially in the European Union. Organic products are perceived as healthier and more environmentally friendly, which increases their attractiveness in the eyes of consumers, and thus promotes higher profitability for organic farms.

4. Comparative analysis of the impact of agricultural production systems on the economic and social situation of organic and conventional farmers

In the completed survey, numerous differences were observed in the self-assessment of the socioeconomic situation of organic and conventional farmers. The results were interpreted separately for the group of organic farmers and the group of conventional farmers, which enabled a detailed analysis of the differences between the two categories. The first question in this section concerned the subjective assessment of the financial situation of the respondent's farm. A 10-point semantic scale was used to scale the answers to this question. A graphical

representation of the results is shown in Figure 3. “1” means the lowest rating, which may indicate a very bad financial situation for the farmer. “10” means the highest rating, which suggests a very good financial situation, full economic stability and no financial problems.

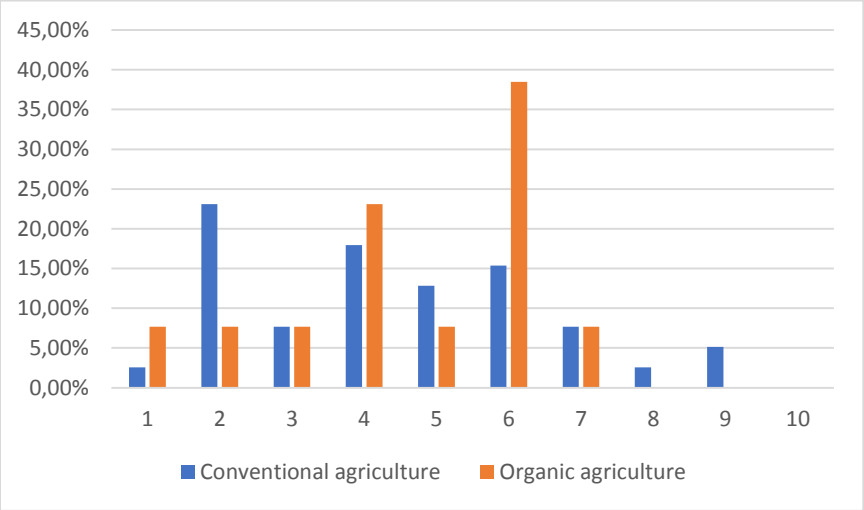

Figure 1. Farmer's assessment of financial situation.

Source: own research.

38.46% of organic farmers rated their financial situation as 6. The most common answer chosen by conventional farmers was 2, indicated by nearly 25% of respondents. Among conventional farmers, there was a higher percentage of ratings at the lower end of the scale (1-3). By contrast, on the upper end of the scale of 8-10, no organic farmer rated their financial situation higher than 7, while the highest rating among conventional farmers was 9. The overall distribution of ratings suggests that organic farmers perceive their situation to be more stable, while conventional farmers face greater economic challenges.

The next question referred to the level of job satisfaction (Figure 2). In this case, too, the 10-point Osgood scale was used.

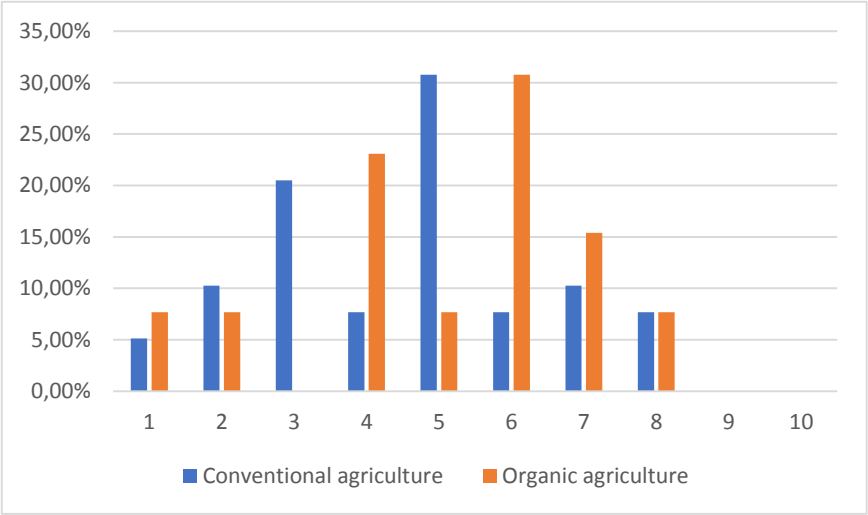

Figure 2. Level of job satisfaction - farmer's assessment.

Source: own research.

30.77% of organic farmers rate their job satisfaction as 6 points. The same percentage of conventional farmers, and also the largest percentage of conventional farmers, rate their job satisfaction as 5 points. This means that the level of job satisfaction is most often at a moderate level in both groups, although there is a higher percentage of ratings in the higher ranges (7-8) among organic farmers, which may be related to a greater sense of meaningful work resulting from concern for the environment and the growing demand for organic products. None of the farmers (both organic and conventional) gave ratings above 8, indicating that, despite the differences in satisfaction, both groups of farmers do not achieve full job satisfaction.

The next part of the analysis was carried out using the χ^2 test. The relationship between the respondents' answers and the criterion, which was the type of agriculture practised, was tested, assuming a significance level of $\alpha \leq 0.05$. Before calculations were made, the homogeneity of the variance was tested with the Shapiro-Wilk test and the normality of the distribution with Levene's test. For each studied characteristic, the null hypothesis was accepted, assuming no relationship between survey responses and the type of agriculture practised. However, the results of the χ^2 test, presented in Table 4, showed a relationship between some variables, which led in those cases to reject the null hypothesis and confirm significant statistical differences.

Table 4.
The results of the χ^2 test (assuming a significance level of $\alpha \leq 0.05$)

Question	Criterion	Answer	Value of p
Do you have income from non-agricultural activities?	type of agriculture	yes	3.11411E-10
		no	
How long have you been farming [years]?	type of agriculture	1 year or less	13.4576744
		2-5 years	
		6-8 years	
		9 years or more	
Is the yield of organic products produced greater than products without organic certification?	type of agriculture	yes	1.00894661
		no	
		the performance of organic products is comparable to conventional ones	
In your opinion, are organic food production costs more expensive than those for products without organic certification?	type of agriculture	yes	1.00894661
		no	
		the cost of organic food is comparable	
In your opinion, are organic products more expensive than products without organic certification?	type of agriculture	yes	0.96825397
		no	
		prices of organic products are comparable	
Do organic products sell at a premium price?	type of agriculture	yes	1.82010582
		no	
		I don't know	
		I'm not sure	

Source: own research.

Analysing the results in Table 3, the following conclusions can be identified:

There is a relationship between the type of agriculture practised and having income from non-agricultural activities, as shown in Figure 3. Organic farmers are more likely to engage in non-agricultural activities and earn additional income from them, which may increase their financial stability. Conventional farmers are more likely to rely solely on farming activities, which may suggest the need to promote income diversification in this group to improve their economic situation.

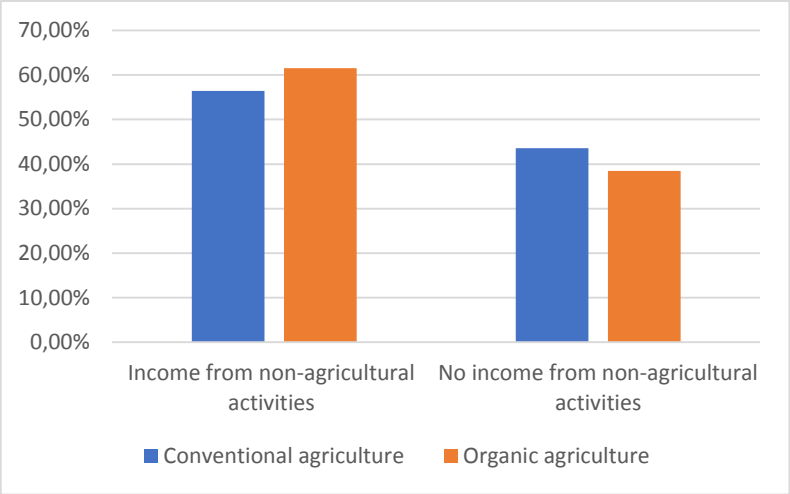

Figure 3. Farmers' declarations of receiving income from non-agricultural activities.

Source: own research.

There is a relationship between the length of time a farm has been in operation and the system under which it is farmed (Fig. 4). Based on the results, it can be concluded that organic farming is the system more often chosen by newly established farms, while conventional farms tend to last longer. In addition, conventional farming dominates on older farms, which may suggest a greater attachment to conventional production methods and a lower propensity to switch to an organic system. These differences may be due to economic factors, social factors and the level of organic awareness among farmers.

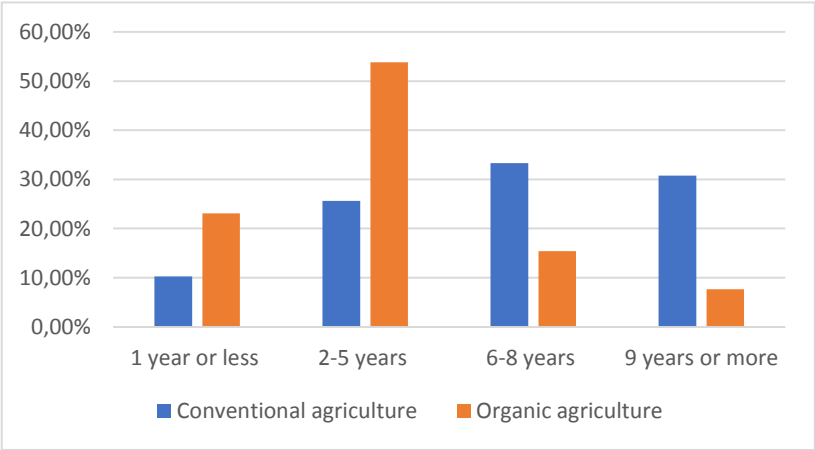

Figure 4. Length of time in operation.

Source: own research.

No correlation was found between the type of agriculture practised and farmers' opinions on the efficiency of organic production compared to the non-certified system. Similarly, there was no correlation between farmers' opinions on the higher cost of organic food production and the type of production used. There was also no relationship between the respondents' opinion on the higher price of organic products and the type of agriculture practised. In other cases, no such relationship was found either.

There is a relationship between the system of agricultural production used and the opinion regarding the "premium price" of organic products. This relationship is shown in Figure 5. Organic farmers are much more confident about the possibility of obtaining higher prices for their products, which probably motivates them to continue and develop organic production methods. Conventional farmers, in contrast, are less confident in this regard, which may be due to a lack of experience in the market for organic products or insufficient knowledge of the demand for such products.

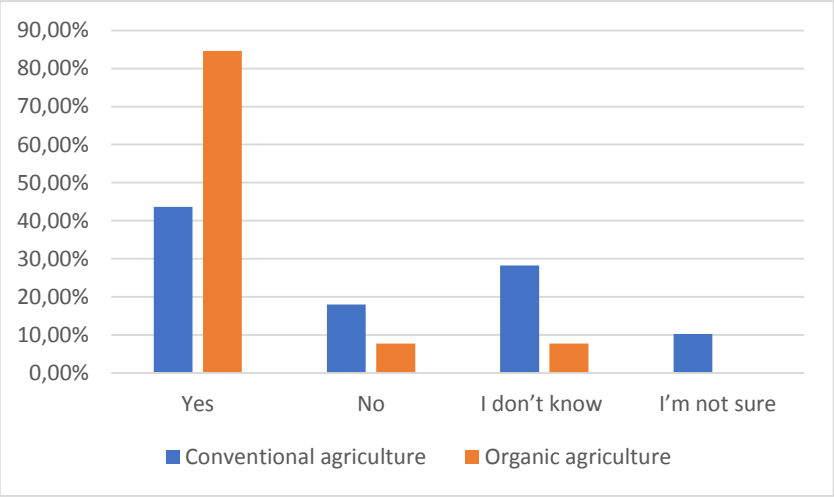

Figure 5. Farmers' opinion on the incidence of premium price for organic products.
Source: own research.

In the next step of the study, an attempt was made to diagnose farmers' motivations for choosing a certain type of agricultural production. Table 5 summarizes the motives that farmers identified when deciding to farm organically. The motive of "health of self and family" was the most important, as this answer was given by as many as 53.8% of the entire group of respondents, including 46.2% in the group of organic farmers and 51.2% in the group of conventional farmers. An equally important factor was "high prices for organic products". Such a response was indicated by 40.4% of the surveyed farmers, with 46.2% in the group of organic farmers and 34% in the group of conventional farmers. The answer "high subsidies on organic farms" was indicated by 26.9% of respondents, with 15.4% of organic farmers and 27.9% of conventional farmers. The least important factor for the farmers surveyed was "other motives", indicated by only 3.8% of respondents.

In Łuczka's study (Łuczka, 2023), the motives of greatest importance, with a rank of 3 and above on the Likert scale, were: "high subsidies for organic farms" (3.83), "pro-environmental lifestyle" (3.32), "own and family health" (3.27) and also belief system and ethics (3.0).

Table 5.
Motives of organic farming in the opinion of organic and conventional farmers

Motive	Average	Group of farmers	
		organic [%]	Conventional [%]
High subsidies for organic farms	26.9	15.4	27.9
Higher prices for organic products	40.4	46.2	34.9
Growing potential of the organic food market	30.7	46.2	23.3
Improving product quality	36.6	38.5	32.6
Self and family health	53.8	46.2	51.2
Other	3.8	7.7	2.3

Source: own research.

The purpose of the survey was also to find out the opinion of farmers regarding the factors that can prevent farmers from further abandonment of organic farming, as has been the case in Poland in recent years. This issue is important from a practical point of view, since the identification of the problem can contribute to preventive measures to eliminate the problem. The analysis shows that according to the respondents, the factors affecting the continuation of production in the organic system are "increased financial support," according to more than half of the respondents 55.8% (76.9% of farmers in the organic group and 45.2% in the conventional group). Another important factor according to 42.3% of respondents (30.6% of respondents in the organic farmers' group and 42.9% in the conventional farmers' group) is "simplification of certification procedures". A smaller number of people - 23.1% (15.4% in the organic farmers' group, 23.8% in the conventional farmers' group) believe that "Increasing the effectiveness of promotional policies for organic farming and food" is important (Table 6).

There are several key factors from the survey that could contribute to increasing the number of farmers in the organic system. A key element to continue farming in the organic system is financial support. It is therefore necessary to introduce additional financial mechanisms for organic farmers to ensure the financial stability of farms. Another measure could be the simplification and reduction of bureaucratic burdens, which could increase the number of organic farms. A further measure could be the promotion of organic farming. More effective promotional activities could help build consumer awareness, which could stabilize the market for organic products in the long run.

In addition, according to Łuczka's survey (Łuczka, 2023), measures such as increasing financial support (4.15), minimizing bureaucratic procedures and regulatory burdens (4.07), and supporting activities that serve to increase demand for organic products (4.03) were of high importance to all respondents. Among preventive measures, high importance was also attributed to such measures as increasing the effectiveness of organic food promotion policies (3.98), as well as improving the support system (3.88). This shows that the factors cited by farmers, which if changed could prevent farmers from further abandoning organic farming, are often repeated.

It is noticeable that organic farmers are less likely to point to bureaucracy and complicated procedures as obstacles. Only ⅓ of them expect these processes to be simplified, which can be explained by the fact that they already have experience in dealing with certification requirements. They were able to go through these procedures and dealt with the formal requirements, and now benefit from certification, which provides them with access to premium markets. In contrast, almost 43% of conventional farmers indicate the need to simplify procedures, suggesting that one of the main problems holding them back from switching to organic farming is a fear of bureaucracy and an inability to deal with formal requirements. It is worth noting that conventional farmers often have a lower level of education, which may influence their perception of procedures as being more complicated than they really are. This is a clear indication to government authorities that the promotion of organic farming should take into account the simplicity and transparency of the certification process, and educational activities can help alleviate these concerns. Another important finding of the survey is the difference in expectations between organic and conventional farmers in terms of access to information. Nearly 25% of conventional farmers indicate a need for better knowledge of the market and more information from the media and those in power.

Table 6.
Proposals for measures to prevent farmers from abandoning organic farming in the opinion of organic and conventional farmers

Proposals for measures to prevent farmers from abandoning organic farming	**Average**	**Group of farmers**	
		ecological [%]	**conventional [%]**
Improving agricultural advice	17.3	**15.4**	**16.7**
Simplification of certification procedures	42.3	30.6	42.9
Increasing the effectiveness of agricultural and organic food promotion policies	23.1	15.4	23.8
Increasing financial support	55.8	76.9	45.2
Other	1.9	0	2.4

Source: own research.

The results of the survey, presented in Table 7, show differences in the perception of the problems of organic farming development by two groups of respondents: organic farmers and conventional farmers. The identified challenges indicate the variety of barriers that may influence the decision to implement or abandon organic farming. Interpretation of these results has important implications for the further development of organic agriculture and the design of policies to support the sector.

Organic farmers identified several significant problems that affect their ability to run their farms effectively. Among the most frequently mentioned were:

- Low public awareness: Lack of widespread knowledge among consumers about the health and environmental benefits of organic production will limit demand for organic products. Farmers see this as a key problem affecting the profitability and growth opportunities of their business.

- Fear of inspection: Organic certification involves regular inspections, which can be stressful and time-consuming. This fear discourages farmers from taking the risks associated with possible failure to meet rigorous standards.
- Low crop yields and high production costs: Organic farmers perceive productivity of their crops to be lower compared to conventional agriculture. Combined with higher production costs associated with, for example, the need to use natural crop protection products, organic farming becomes less profitable, especially in the short term.
- Low demand for organic products: Despite growing consumer awareness, the high price of organic products limits the availability of these products on the mass market. Organic farmers feel this lack of interest and the risk of not selling the food they produce.
- More time-consuming work: Organic production requires more labour, especially in terms of crop protection and cultivation. The time-consuming nature of such work may discourage potential new farmers from switching to organic farming methods.

Conventional farmers also pointed to a number of barriers that keep them from implementing an organic mode of production. Among the most frequently mentioned of these were:

- Lower yields: Conventional farmers point to lower yields in organic production compared to intensive conventional agriculture. Yield loss is one of the key factors inhibiting the decision to switch to organic production methods.
- Bureaucracy and administrative burden: The requirements for organic certification are seen as overly complicated and burdensome. Conventional farmers are concerned about the additional bureaucracy and associated costs.
- Low demand and low market: Farmers fear that the market for organic products is too small, which could prevent them from generating satisfactory revenues. As organic products are more expensive, they are only available to a narrow group of consumers, which creates uncertainty about their profitability.
- Labour shortage: Organic production requires more manual labour, which can be a problem given the difficulty of accessing labour in rural areas.
- Poor promotion of organic products: Conventional farmers believe that organic products are not promoted enough, which reduces consumer interest. Poor advertising and low availability of information on organic food also affect their perception of the market.

The responses collected show clear discrepancies in the perception of problems between organic and conventional farmers. Organic farmers emphasize problems related to operational and market difficulties, such as high costs, low productivity and limited demand for organic products. Conventional farmers, in contrast, are concerned about financial risks and difficulties related to bureaucracy and market access.

Table 7.
Biggest problems of organic farming according to farmers' opinions

Group of farmers	
organic	**conventional**
low public awareness	lower yields
fear of scrutiny	I don't know
low crop yields	nope
high production costs	bureaucracy
low demand for organic products due to high prices for "premium" products	lack of quick and convenient access to purchase certified organic products
more time-consuming nature of the work performed	low demand for premium products
	small market
	shortage of labour
	low profitability
	major restrictions introduced by the EU
	high prices for organic products relative to others
	little interest in more expensive products
	poor advertising of organic products
	poor access to information about organic food production and predicting the cost of organic foods
	the price of organic products is too low, organic production is not profitable
	too much crop diversification and matching good crops to soil requirements

Source: own research.

The results of the survey indicate the need for further research into the barriers to implementing organic farming. It is worth analysing why conventional farmers, despite being aware of the benefits of organic production, do not make the decision to switch to this form of farming. It is also important to identify effective strategies that could help farmers overcome current barriers.

In conclusion, the development of organic agriculture requires integrated measures including both education, financial support and administrative changes. Eliminating or reducing the identified barriers can contribute to wider implementation of organic production methods, which in turn will benefit both farmers, consumers and the environment.

5. Conclusions

The results suggest that organic farming may be more profitable and attract farmers with higher levels of education. Nevertheless, further support from both government institutions and EU programmes is needed to fully realize the sector's potential, especially in regions such as Małopolska.

Farmers participating in the survey pointed to numerous problems in the development of organic farming, mainly in the area of market and agricultural policy. Among the most important of these are the lack of a long-term strategy to promote organic farming production,

the lack of a strong negotiating position for farmers on the market, increasing bureaucracy and administrative burdens and, most importantly, difficulties in selling products. The findings suggest that legislative institutions and organizations responsible for organic agriculture certification should take steps to simplify or reduce procedural burdens. In order to reduce supply-side barriers, it is recommended to support initiatives to bring together organic farmers, which can strengthen their position in food supply chains and lead to the shortening of these chains by selling products on local markets. The role of such activities is gaining importance in the eyes of consumers, who increasingly appreciate the benefits of a balanced diet. Consequently, the sustainable development of organic agriculture should be linked to initiatives to raise consumer awareness of the benefits of organic food.

Based on the research and analysis carried out, it can be concluded that the hypothesis assuming that organic farmers better evaluate their economic situation has been positively verified. Organic farmers show a higher level of satisfaction with their financial situation compared to conventional farmers. The research objectives of identifying motivations and barriers of an economic and social nature related to the implementation of organic certification were also realized. The research confirmed that organic farmers are more satisfied with their economic situation. This is related to both the higher prices they can get for their products and access to markets that value organic products. This satisfaction can also be attributed to the feeling that they are contributing to the protection of the environment and the production of healthy and high-quality food. Organic farmers tend to be better educated, which translates into a greater willingness to engage in innovative activities, including non-agricultural activities. They are more open to developing alternative sources of income, which improves their overall economic situation. The key motivations of organic farmers are the desire to produce healthy, high-quality food and to obtain better prices for their products. These values are well understood by conventional farmers as well, which raises the question of why they choose not to switch to organic farming despite this knowledge. The biggest barriers to implementing organic farming identified among conventional farmers are concerns about lack of markets and low profitability. Although these farmers recognize the financial benefits of organic farming, at the same time they fear the risks associated with market instability, which introduces contradictory statements. Measures to support the development of organic farming should focus on financial and marketing aspects. It is necessary to provide financial support to farmers, especially during the transition period, and to promote organic products to ensure stable markets.

Although conventional farmers are aware of the health and financial benefits of organic production, their hesitation to implement organic certification requires further research. The key questions are: why are conventional farmers reluctant to make the decision to switch to organic farming, despite being aware of the benefits?

Information campaigns are needed to promote the benefits of organic farming to both farmers and consumers. Increasing public awareness of the value of organic products can help increase demand and develop the market. It is necessary to simplify and clarify the procedures

involved in implementing organic certification. Farmers should receive clear information about the requirements and benefits of switching to organic farming, which can reduce their concerns. It is recommended that a system of subsidies and preferential loans be introduced for organic farmers in order to remove the financial barriers associated with the transition to organic production. Also, marketing of organic products should be supported by campaigns at the national and European levels. A key element of the strategy should be to improve the economic situation of farmers by giving them access to the growing market for organic products. Training and consulting programmes should also be introduced to help conventional farmers convert their farms to organic production, while minimizing economic risks.

Implementation of the above recommendations can increase the share of organic farming in the structure of agricultural production in the European Union, while improving the economic situation of farmers and promoting sustainable development.

Within the framework of agricultural policy, it is necessary to improve the efficiency of institutions and regulations, and to create a long-term strategy for the development of organic agriculture. The results of the research can serve as a basis for developing more effective policies to support the development of organic agriculture, which will be implemented by the relevant public authorities.

References

1. Bryła, P. (2016). Organic food consumption in Poland: Motives and barriers. *Appetite, 105*, 737-746. DOI: 10.1016/j.appet.2016.07.012.
2. Brzezina, N., Biely, K., Helfgott, A., Kopainsky, B., Vervoort, J., Mathijs, E. (2017). Development of Organic Farming in Europe at the Crossroads: Looking for the Way Forward through System Archetypes Lenses. *Sustainability, 9(5),* 821.
3. Connell, K.Y.H. (2010). Internal and external barriers to eco-conscious apparel acquisition. *International Journal of Consumer Studies, 34(3),* 279-286.
4. Das, S., Chatterjee, A., Pal, T.K. (2020). *Organic farming in India: a vision towards a healthy nation.*
5. *Dodatkowe działania wspomagające działalność w zakresie produkcji ekologicznej*. Agencja Restrukturyzacji i Modernizacji Rolnictwa - Agencja Restrukturyzacji i Modernizacji Rolnictwa, Gov.pl, 10.09.2024.
6. European Commission. *Agriculture and Rural Development. Organics at a glance*. https://agriculture.ec.europa.eu/farming/organic-farming/organics-glance_en, 5.03.2025.
7. Eyhorn, F., Müller, A., Reganold, J.P., Frison, E., Herren, H.R., Luttikholt, L., Mueller, A., Sanders J., El-Hage Scialabba N., Seufert V., Smith P. (2019). Sustainability in global agriculture driven by organic farming. *Nature Sustainability, vol. 2*, pp. 253-255.

8. Falcone, G., Stıllıtano, T., Luca, A., Vita, G., Iofrıda, N., Strano, A., …, D'Amico, M. (2020). Energetic and Economic Analyses for Agricultural Management Models: the Calabria PGI Clementine Case Study. *Energies, 13(5),* 1289. https://doi.org/10.3390/en13051289
9. Ghanghas, B., Rohila, A., Chahal, P., Mukteshwar, R. (2021). Prospects and constraints experienced in organic farming by farmers. *The Indian Journal of Agricultural Sciences, 91(10)*. https://doi.org/10.56093/ijas.v91i10.117518
10. Gleim, M., Lawson, S.J. (2014). Spanning the gap: an examination of the factors leading to the green gap. *Journal of Consumer Marketing, 31(6/7),* 503-514.
11. Guth, M., Smędzik-Ambroży, K., Czyżewski, B., Stępień, S. (2020). The Economic Sustainability of Farms under Common Agricultural Policy in the European Union Countries. *Agriculture, 10(2),* 34. https://doi.org/10.3390/agriculture10020034
12. Łuczka, W. (2023). Problemy rozwoju rolnictw a ekologicznego w opinii rolników. *Annals PAAAE, Vol. XXV, No. 4,* DOI: 10.5604/01.3001.0054.0916
13. Łuczka-Bakuła, W., Kalinowski, S., Shmygol, N. (2021). Organic Farming Support Policy in a Sustainable Development Context: A Polish Case Study. *Energies, 14(14),* 4208. https://doi.org/10.3390/en14144208
14. Martín-García, J., Gómez-Limón, J., Arriaza, M. (2023). Conventional versus organic olive farming: which has a better economic performance? *Agricultural and Food Economics, 11(1)*. https://doi.org/10.1186/s40100-023-00292-5
15. MRiRW (Ministerstwo Rolnictwa i Rozwoju Wsi [Polish Ministry of Agriculture and Rural Development]) (2023). *Polski handel zagraniczny artykułami rolno-spożywczymi w 2022 roku (Polish foreign trade in agri-food products in 2022),* https://www.gov.pl/web/rolnictwo/handel-zagraniczny-artykulami-rolno-spozywczymi, 19.06.2024.
16. MRiRW (2022). *Plan Strategiczny dla Wspólnej Polityki Rolnej na lata 2023-2027*. Warszawa: Ministerstwo Rolnictwa i Rozwoju Wsi.
17. Pawlewicz, A. (2020). Change of Price Premiums Trend for Organic Food Products: The Example of the Polish Egg Market. *Agriculture, 10(2),* 35. https://doi.org/10.3390/agriculture10020035
18. Pilarczyk, B., Nestorowicz, R. (2010). *Marketing ekologicznych produktów żywnościowych.* Oficyna a Wolters Kluwer business.
19. Prandecki, K., Wrzaszcz, W., Zieliński, M. (2021). Environmental and Climate Challenges to Agriculture in Poland in the Context of Objectives Adopted in the European Green Deal Strategy. *Sustainability, 13*(18)
20. Reganold, J., Wachter, J. (2016). Organic agriculture in the twenty-first century. *Nature Plants, 2*, 15221.
21. Rejman, K., Kaczorowska, J., Halicka, E., Prandota, A. (2023). Jak konsumenci mieszkający w stolicach Europy postrzegają żywność posiadającą certyfikaty zrównoważonego rozwoju? *Foods, 12(23),* 4215. https://doi.org/10.3390/foods12234215

22. *Rozwój rolnictwa ekologicznego - Statistics Explained* (20.02.2025).
23. Savi, S. (2024). What Influences Consumers To Buy Organic Food? *A Systematic Review. African Journal of Biological Sciences*.
24. Sazońska, B., Sambor, K., Gajewska, M., Stachowicz, T., Krysztoforski, M., Litwinow, A., Pomykała, D., Gradka, I. (2021). *Gospodarowanie ekologiczne - co każdy rolnik wiedzieć powinien.* MRiRW.
25. Słowińska, M. (2019). Wykorzystanie testu chi-kwadrat w badaniach preferencji żywieniowych konsumentów. *Nauki Inżynierskie i Technologie, 1(32),* 24-38.
26. Soroka, A., Wojciechowska-Solis, J. (2019). Consumer Motivation to Buy Organic Food Depends on Lifestyle. *Journal: Foods, No. 581.*
27. *Stawki płatności*. Agencja Restrukturyzacji i Modernizacji Rolnictwa, Gov.pl, 10.09.2024.
28. Szreder, M. (2004). *Metody i techniki sondażowych badań opinii.* Warszawa: PWE.
29. Tandon, A., Dhir, A., Kaur, P., Kushwah, S., Salo, J. (2020). Why do people buy organic food? The moderating role of environmental concerns and trust. *Journal of Retailing and Consumer Services, 102247.*
30. Witek, L. (2019). *Zachowania nabywców wobec produktów ekologicznych – determinanty, pomiar i model*. Rzeszów: Oficyna Wydawnicza Politechniki Rzeszowskiej.
31. Wojciechowska-Solis, J., Barska, A. (2021). Exploring the preferences of consumers' organic products in aspects of sustainable consumption: The case of the Polish consumer. *Agriculture*, *11*(2), 138.
32. Wrzaszcz, W., Prandecki, K. (2020). Rolnictwo a Europejski Zielony Ład (Agriculture and the European Green Deal). *Zagadnienia Ekonomiki Rolnej*. DOI: 10.30858/zer/131841.
33. Zieliński, M., Wrzaszcz, W., Sobierajewska, J., Adamski, M. (2024). Development and Effects of Organic Farms in Poland, Taking into Account Their Location in Areas Facing Natural or Other Specific Constraints. *Agriculture, 14(2),* 297. https://doi.org/10.3390/agriculture14020297
34. Ziętara, W., Mirkowska, Z. (2021). Zielony ład w kierunku rolnictwa ekologicznego czy ekologizacji rolnictwa? *Zagadnienia Ekonomiki Rolnej*.