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## DEVELOPMENT OF ORGANIC AGRICULTURE IN SELECTED COUNTRIES OF THE EUROPEAN UNION

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**ABSTRACT:** The aim of the article was to assess the state and trends in the development of organic agriculture in selected European Union countries. The study presented and compared organic farming in 10 EU countries with the largest area of organic crops. The research shows that the largest area of organic crops was found in large agricultural countries of the EU, including i.e. France, Spain, and Italy, where there were the most organic farms. The only country that in 2020 exceeded the level of 25% of the share of ecological areas in the total area of the country recommended by the European Green Deal was Austria. The niche nature of organic production was related to, among others, relatively low production profitability and low demand for organic food. In such a situation, it is worth recommending activities supporting organic farming, including ecological payments and other pro-ecological solutions.

**KEYWORDS:** area of organic crops, number of agricultural producers, organic production, EU

## Introduction

Agriculture is an important sector of the economy in all European Union (EU) countries, as evidenced by the gross value added obtained from agriculture, which in 2020 amounted to EUR 178.4 billion (European Parliament, 2021). In addition, agricultural production results in food products, which are the existential basis of the population (Wilkin, 2007). The size of agricultural crops contributes to the fact that the EU is the largest exporter of food. Group food deliveries from EU countries in 2018 (both internally and externally) amounted to almost USD 580 billion. For comparison, food exports from the United States during that period were USD \$149 billion. In the EU countries, the leaders among food suppliers were the Netherlands, Germany, France, Spain and Italy. In 2018, revenues from food exports in Poland amounted to PLN 34.7 billion, which placed Poland in seventh place among the largest food exporters in the EU and thirteenth in the world (Glinka, 2022).

In 2020, the European Commission included in its strategy recommendations regarding the entire food production process, which at the same time defined international cooperation in creating sustainable food systems, which were included in the European Biodiversity Strategy 2030 (European Commission, 2020a) and the Farm to Fork Strategy (European Commission, 2020b). It is worth adding that “The assumptions of the European Green Deal, and in particular one of the goals set out in the Biodiversity Strategy and the Farm to Fork Strategy, assume that by 2030, 25% of agricultural land in the EU will be covered by organic production. This approach will be continued under the area support to organic farming implemented under the Strategic Plan for the CAP 2023-2027” (Wodzień-Nowak, 2022; Jętkowska, 2022). Such a recommendation, the proposed eco-premiums and higher subsidies for organic production (compared to those obtained in conventional production) were aimed at increasing the interest of farmers in organic crops. It also contributed to the fact that the statistical income of farmers producing organic products was higher compared to those obtained by agricultural producers using conventional production methods (Głuszek, 2023). The adopted strategies emphasise the benefits of the development of organic farming, the assumptions of which include pro-consumer activities, such as shortening the supply chain. As a consequence, this may contribute to greater availability of organic food products, which may encourage interested customers to make larger purchases and popularise the idea of eating healthy food. Stimulating the demand for e.g. organic food could have a positive impact on increasing income from organic farming, more effective use of existing labour resources on farms, as well as improving the condition of the natural environment (König & Araújo-Soares, 2022; Czudec et al., 2022; Chrobocińska & Lotkowska, 2023). However, experts on the issue note that in organic farming yields and milk production may be significantly lower compared to conventional farming, so high prices of eco-products often do not cover production costs, and this may significantly limit the development of organic farming (Głuszek, 2023).

The above considerations inspired the analysis of the potential (Łukiewska & Chrobocińska, 2015) and the determination of trends in the development of organic farming in the European Union. The study fills the knowledge gap in the field of current data and enables the assessment of the use of potential development opportunities in the field of organic farming in the EU. Identifying the factors stimulating and limiting the development of organic farming can support agricultural production managers in the decision-making process aimed at the optimal allocation of resources.

## An overview of the literature

Organic farming is a specific way of managing agricultural production and food production. Its specificity lies in the fact that natural processes and substances are used in food production, which in turn allows, among others, maintaining biodiversity, maintaining regional ecological balance, ensuring animal welfare, improving the natural environment and responsible use of natural resources (European Commission, 2023). In EU countries, interest in organic farming was stimulated, among others, by the proposal of the Strategic Plan for the Common Agricultural Policy until 2027, which provides a number of subsidies for organic producers. The “Farm to Fork” strategy, which is the essence of the European Green Deal, also contributed to this, assuming, among others, the implementation of a pro-ecological food production system (Schebesta & Candel, 2020; Mishra, 2023) the total area of agricultural land with organic crops by 2030. A comparison of data from the tables published

by the European Commission in 2012-2021 indicates that there was an increase in the area of land used organically by 76 percentage points (from 9 million ha to 15.9 million ha). In 2021, the share of land area used by organic farming represented 9.9% of all agricultural land in the EU and 21% of all agricultural land under organic farming. However, this is not much of the total agricultural production, which proves that this phenomenon is of a niche nature.

In the EU in 2021, France had the largest share of land under organic farming. The leaders in this respect also include Spain, Italy and Germany. In the ranking of eco-producers in the EU, Poland took only 9th place in 2021 (Mazurek, 2023). Data from 2020-2022 from the reports of the Trade Quality Inspection of Agricultural and Food Products (IJHARS) show that in 2021, 21,795 entities in Poland were engaged in organic farming, including 19,986 organic farmers conducting agricultural production in an area of 550,000 ha. Data from 2020-2022 from IJHARS reports indicate an increase in the number of organic producers operating in the field of agricultural production by 14 percentage points (from 18,575 to 21,187). The area of ecological agricultural land (ha) in 2020 was 509,291.3 ha, while in 2022, it was 554,631.7 ha. The dynamics of changes mean an increase in this area of almost 9 percentage points, which would indicate the development of organic production. However, it is difficult to disagree with Zieliński et al. (2022) that it is "... an apparent development of organic production in our country. There is a quantitative increase in the number of farms and organic areas, but this fact is not reflected in commercial organic production". It is worth adding that in 2021, the share of organic food in the food market in Poland was approximately 0.5% (Koalicja na rzecz bio, 2021), while the share of organic crops area accounted for approximately 3.5% of the total agricultural area (Zieliński et al., 2022).

The increased interest in organic farming, apart from ideological aspects, could also result from the fact that in 2021, one of the largest markets for organic products, apart from the United States (worth EUR 48.6 billion), was Europe (EUR 46.7 billion) (Ruiz de Maya et al., 2011; Mulder & Liu, 2017; Ham, 2019). In the EU, the largest sales market for eco-products was Germany (EUR 16 billion). It is worth adding that economic development measured by GDP per capita had an impact on the amount of expenditure on organic food, which means that in wealthier countries there are better prospects for selling organic food products (Chrobocińska & Lotkowska, 2023; Łukiewska & Chrobocińska, 2023; Mazurek, 2023). This may inspire organic food producers to recreate forgotten species or varieties of plants containing high-value protein, unsaturated fatty acids and many vitamins and microelements, e.g. spelt wheat or emmer wheat. Moreover, as Trajer (2022) emphasises "... Organic meat products from fattened pigs are characterised by a higher content of nutrients. The assessment of the level of nutrients indicates a favourable amount of fat contained in the meat. According to consumers' opinions, the appropriate content of intramuscular fat guarantees obtaining a product that is generally considered tasty...". Therefore, consumers appreciate both the taste and quality of organic food. Therefore, promotional marketing activities aimed at creating a good brand of organic food would also help build customer trust, which would ultimately have a positive impact on the consumption of organic food (Mazurek, 2023).

Unfortunately, the mentioned benefits do not always compensate for certain shortcomings, i.e. higher production costs, which are the result of, among others, increased labour inputs or lower productivity, which results in half the yield compared to those obtained using conventional methods. As a result, unfortunately, organic farming is becoming a less profitable direction of agricultural production compared to conventional agriculture (Sandu, 2022). Perhaps in such a situation, it is worth considering a "flexible approach to the implementation of rules conducive to climate and biodiversity protection" (Ziętara & Mirkowska, 2021), used, for example, in Switzerland in the form of direct payments for the so-called "ecological services" including, among others: use of selected plant protection products. Possibly, integrated production systems can be implemented that allow yields comparable to conventional agriculture and, at the same time, enable the implementation of ecological and socio-economic goals. Perhaps an alternative solution for organic farming is, for example, the promotion of the development of naturally valuable areas or in areas with natural or other specific constraints (ANC) in accordance with the concept of sustainable development enabling the production of eco-food. Then, organic farming in such areas could contribute to better management of human capital that has not yet found employment in the above-mentioned areas rural areas. An additional advantage in such a situation may be the use of EU project funding (Zielińska, 2015; Zieliński et al.,

2024). Moreover, "... organic farming could constitute an alternative livelihood strategy from the point of view of environmental protection policy..." (Pawlewicz et al., 2022).

The development of organic farming is determined by a number of factors, e.g., the relatively high price of organic products, which is the result of the high costs of producing organic food. This state of affairs was caused by macroeconomic factors, i.e., the global pandemic, the war in Ukraine, and the energy crisis caused by Russia, as well as factors at the meso and microeconomic levels. Some conditions resulted in an increase in inflation and agricultural production costs, which contributed to stagnation and, in some cases, even regression of organic farming (Głuszek, 2023). And other determinants limited the development of organic farming in other areas, e.g. legal solutions accepting organic production on part of the farm (which is contrary to the assumptions of the holistic approach of organic farming), lack of knowledge about the labelling of organic products, marketing strategy not adapted to customer perception, lack of education in terms of organic products, or the possibility of food adulteration, poorly functioning market for the purchase and processing of organic products, contamination with mycotoxins probably during storage (Grzybowska-Brzezińska, 2012; Jarossova & Mindasova, 2015; Grzybek, 2016; Hermaniuk, 2018; Kułyk & Dubicki, 2019; Najiib et al., 2021; Tandon et al., 2020; Hanus, 2020; Kowalczyk & Kwasek, 2020; Zieliński et al., 2022; Chrobocińska & Lotkowska, 2023). As a result, in 2022, 1,450 farms in Austria switched from organic farming to conventional farming. Similar sentiments are observed in German agriculture, many German farmers are considering returning to the conventional method of agricultural production (Głuszek, 2023).

## Research methods

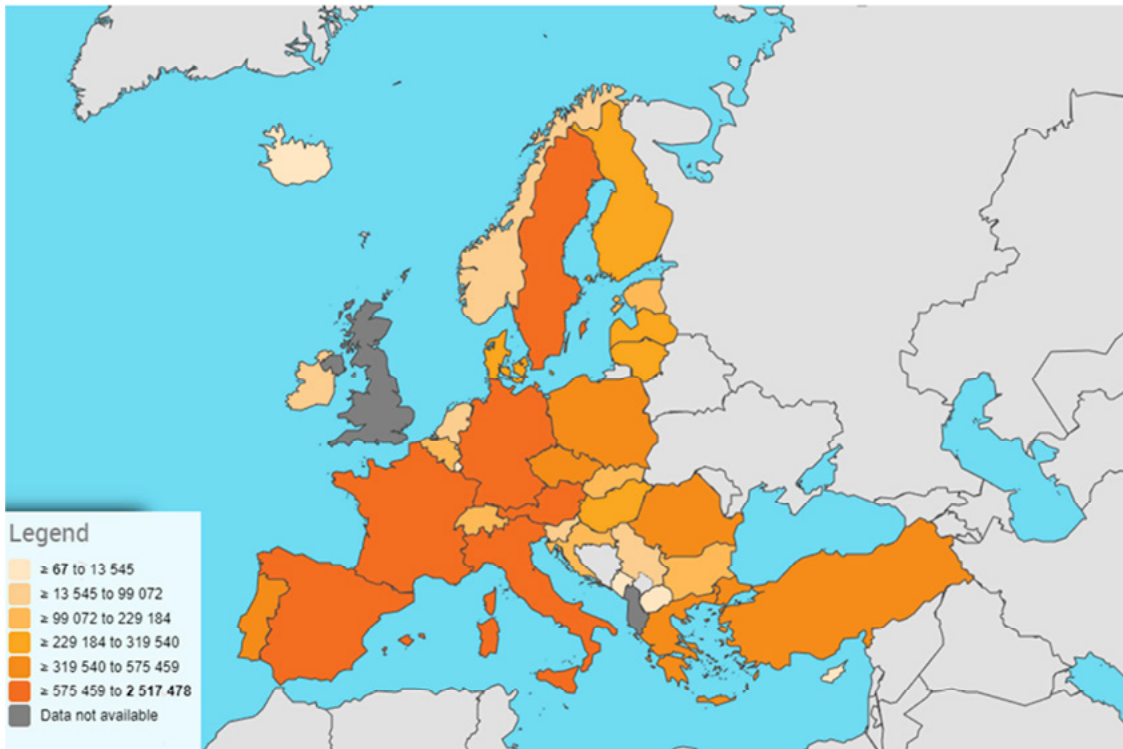
The aim of the article was to assess the state and trends in the development of organic agriculture in selected European Union countries. The theoretical description is based on the use of foreign and domestic literature, its criticism and analysis. The study was comparative and was based on a comparison of organic farming in the Member States, which in 2020 were characterized by the largest area of organic farming in the EU.

In 2020, the area of organic farming in the EU was 14.8 million ha, representing 19.7% of the world's organic farming area and 9.1% of total EU agricultural land (European Commission, 2023). The interest in organic farming in individual EU Member States varies greatly (Figure 1). This applies to both the level and the dynamics of this type of farming. In 2020, the largest area of organic crops in hectares was in large EU agricultural countries, i.e. France (2.52 million ha), Spain (2.44 million ha), Italy (2.09 million ha) and Germany (1.59 million ha). The next positions were occupied by Austria and Sweden, where the area of organic farming was 679.99 thousand of hectares and 610.54 thousands of hectares. The Czech Republic also belonged to the group of countries with a relatively large area of organic cultivation (540.38 thousand ha), Greece (534.63 thousand ha), Poland (509.29 thousand ha) and Romania (468.89 thousand ha). In countries such as Latvia, Denmark, Hungary, Finland and Portugal, organic farming covered 291.15 thousand of hectares to 319.54 thousand hectares. In Lithuania, Slovakia, Estonia, Bulgaria and Croatia, the area of this type of cultivation ranged from 108.61 thousand hectares to 235.47 thousand hectares. In other EU Member States, the area of ecological agricultural land did not exceed 100 thousand of hectares. Based on the analysis of the size of the cultivated area, it can be concluded that the concentration of organic production took place in several countries that are currently most important for the organic food market. This concerned the 10 countries with the largest area of land under organic farming, which together accounted for 81.39% of the total area of organic farming in the EU. Therefore, the sample selection was purposeful, and the study focused on organic farming in France, Spain, Italy, Germany, Austria, Sweden, the Czech Republic, Greece, Poland and Romania.

The following variables were used in the analysis:

- area of organic farming (ha and %),
- share of organic crop area in the total agricultural crop area (%),
- rate of changes in the area of organic farming (%),
- number of organic agricultural producers (number).

The data source was Eurostat. The time range of the research covered the years 2015-2020.



**Figure 1.** Organic crop area in 2020

Source: authors' work based on Eurostat data [25-06-2023].

## Results of the research

The largest area of organic farming in the EU in 2020, as previously mentioned, stood out in France. Its share in the entire EU in this respect was 17.10% (Figure 2). France was also distinguished by the highest growth rate of organic farming area among the analysed countries. Compared to 2015, the size of this type of crop almost doubled, i.e. by 90.3% (1.19 million ha) (Figure 3). As a result, France moved up in the ranking from third to first position. The second place in 2020 was taken by Spain, which in 2015 was the leader in this ranking. In 2018, the share was 18.55%, and with a relatively small increase in area at the level of area increase by 23.84% (469.32 thousand ha), it decreased to 16.56%. The third place was taken by Italy, whose share in organic farming in 2020 was 14.23% and was similar to five years earlier (14.07%). In addition, Italy recorded a similar to the EU average increase in the area of cultivation in the analysed period at the level of 40.33%, compared to 38.78% in the entire EU. Germany was ranked fourth with a share of 10.81%. In this country, the interest in organic farming has clearly increased in the analysed years. Their area increased by 50.05%. The share of the four largest ecological agricultural lands in the analysed years increased from 55.08% to 58.70%.

It was followed by Austria, Sweden and the Czech Republic, followed by Greece. Their share of the EU ecological area in 2020 ranged from 3.63% to 4.62% and was lower than five years earlier. During this period, these countries saw an increase in the area of organic farming, but it was lower than the EU average. Poland took the next position in 2020. Poland was the only country analysed to have decreased its ecological land area between 2015 and 2020 (by 12.30%). As a result, the share of this country decreased from 5.47% to 3.46%, and Poland moved from 5th to 9th place in the ranking. Research by Sadowski et al. (2021) shows that Polish organic farms were characterised by high production inefficiency and unprofitability and their strong dependence on public support. According to Jętkowska (2022), the decrease in the area of ecological agricultural land was caused by the reduction of the rules of financial support in the next financial perspective. According to this author, the reasons for the resignation of farms from participation in organic production systems can also be found in the unsustainability of their production systems, consisting of, among others, a low level of

agroecology when, after 2014, production organic farms began to be preferred. It is also worth mentioning that in 2018-2020, the value of the Polish organic food market was estimated at PLN 1.1 billion, but compared to the entire food market in Poland, it is only 0.3% of the total (PIŹE, 2019). In addition, in 2017, the average expenditure on organic food in Poland was at the level of EUR 6 per capita per year, which was 1/10 of the EU average and 48 less than the Swiss expenditure on organic food.

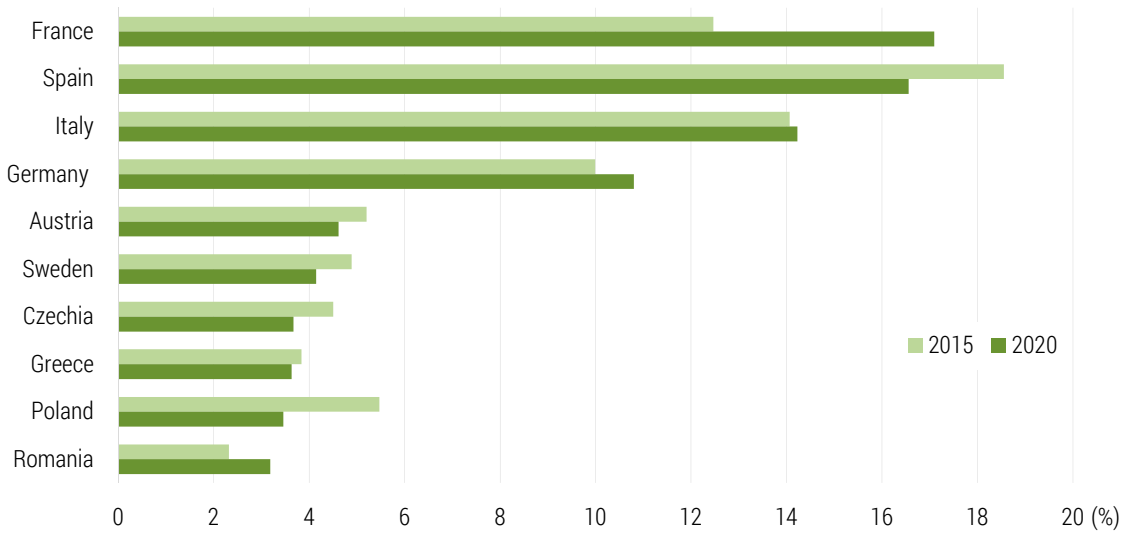


Figure 2. Share of selected countries in the total area of organic farming in the EU

Source: authors' work based on Eurostat data [25-06-2023].

Romania was ranked 10th. This country was distinguished by the largest relative increase in the area of organic crops among those analysed, which amounted to 90.66%. As a result, Romania's share increased from 2.32% to 3.18%. The European Commission's report (European Commission, 2023) shows that Romanian authorities see great potential for the development of organic farming. Romania, like other EU Member States, is developing a national plan to support this type of activity. The plan includes subsidies for new entrants, the distribution of organic food as part of the school curriculum, measures to promote consumption and encourage production, and funding a commitment to maintain organic farming and convert new areas to organic farming.

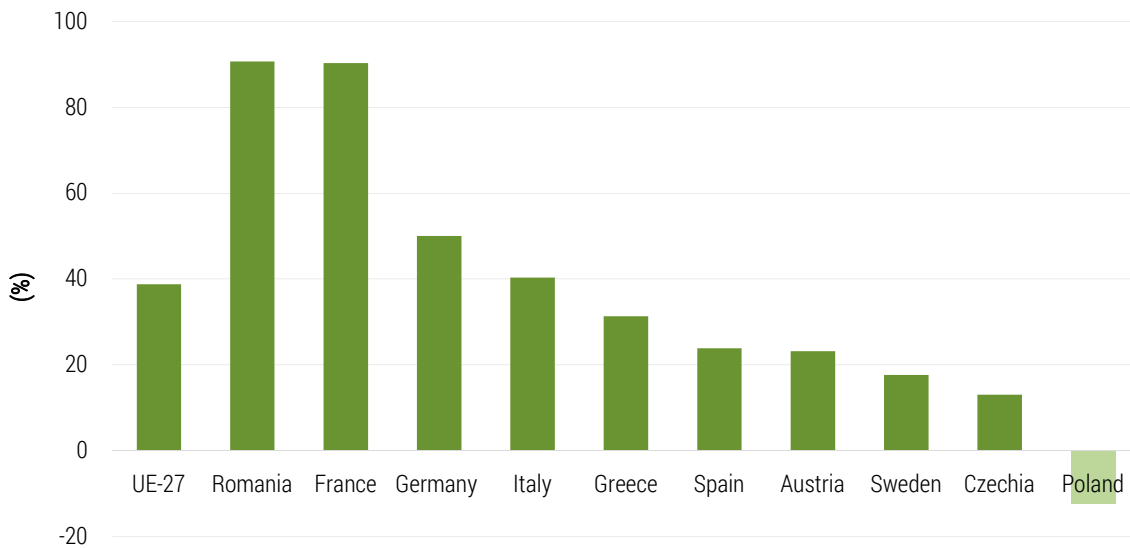


Figure 3. The rate of changes in the area of organic farming in the EU in 2015-2020

Source: authors' work based on Eurostat data [25-06-2023].

In the entire EU, the share of organic crops in the total agricultural area in 2015 was 6.56%, and in 2020 – 9.09% (Figure 4). The EU’s goal is to allocate at least 25% of agricultural land in the EU to organic farming by 2030. In 2020, the only country that exceeded the recommended level was Austria. It amounted to 25.69% and was higher by 5.39 p.p. than in 2018. Sweden ranked second among the analysed countries with a share of 20.31% (compared to 17.14% in 2018). Relatively good results in this respect were also achieved in Italy and the Czech Republic. In these countries, the share of organic farming areas in 2020 was 15.96% and 15.33%, respectively. In both countries, an increase of 4.17 p.p. was recorded in the analysed period and 1.65 p.p. The countries where the share of organic farming area exceeded the EU average, but only slightly, included Greece, Spain and Germany (10.15%, 9.98%, 9.59%). In all these countries, the share increased by 1.74 p.p. – 3.25 p.p. Organic farming was less important in agriculture in France, which has the largest acreage of this type in the EU. The share of organic farming was 8.71% of all in 2020 and 4.54% in 2018. It seems, therefore, that compared to the size and possibilities of the country, its potential is still untapped. Organic farming was the least important in Romania and Poland (3.59% and 3.45%). However, Romania recorded an improvement in this respect compared to 2018 (1.77%). Poland, on the other hand, was the only country among the analysed countries where the importance of organic crops in the total agricultural area decreased in this period (by 0.58 p.p.).

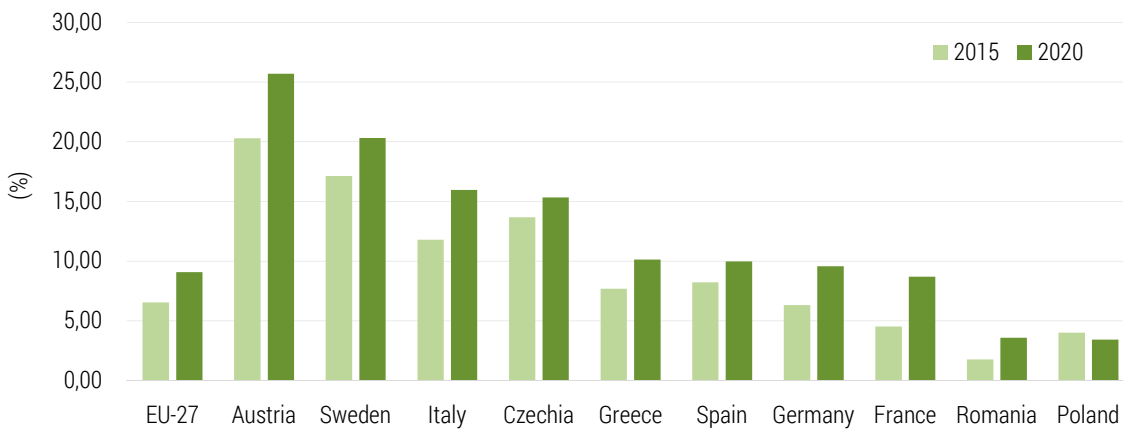
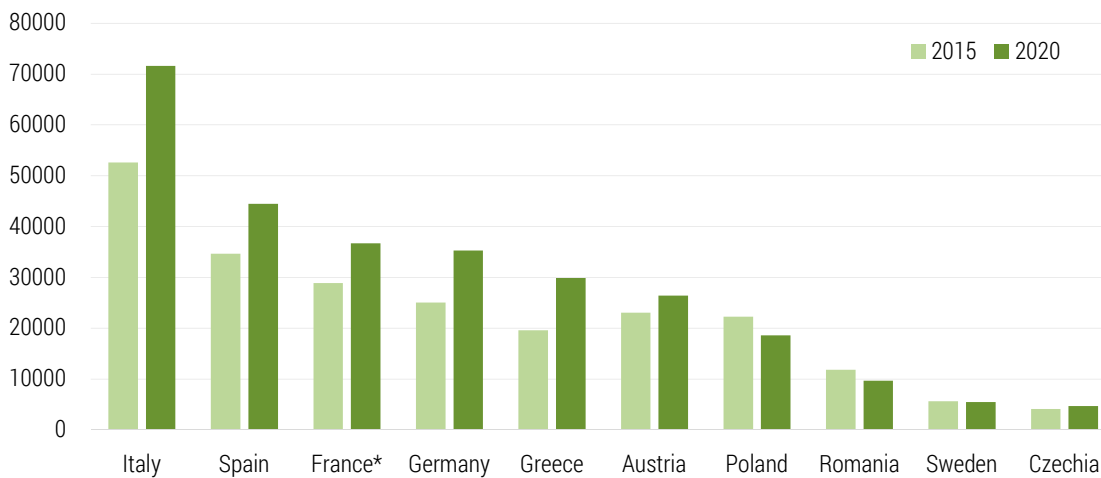


Figure 4. Share of organic farming area of the total agricultural area in selected countries in 2015-2020

Source: authors' work based on Eurostat data [25-06-2023].



\* for France, data for 2015 and 2017.

Figure 5. Number of organic agricultural producers

Source: authors' work based on Eurostat data [25-06-2023].

The data analysis shows that the largest number of farms producing organic farming in accordance with the criteria of organic farming was recorded in Italy (Fig. 5). In 2022, 71.59 thousand were located in this country. Farms of this type, i.e. 36.08% more than in 2018. The next countries in which a relatively large number of organic farms operated in the analysed period were Spain, France and Germany (35.26 thousand – 44.49 thousand). In countries such as Greece, Austria, and Poland, it has operated at 18.60 thousand to 29.87 thousand entities operating in the organic farming sector. Definitely fewer entities of this type were located in Romania, Sweden and the Czech Republic (4.67 thousand to 9.65 thousand). In most of the analysed countries, an upward trend in the number of organic farms was observed. A particularly dynamic increase in interest in organic production was observed among farmers in Greece (52.36%), Germany (40.61%) and Italy (36.08%). In countries such as Spain, Austria and the Czech Republic, the number of entities operating in accordance with the criteria of organic farming increased by 13.30%-28.32%. In Poland, Romania and Sweden there was a downward trend. The largest decrease in the number of enterprises was recorded in Poland, at the level of 18.33%. It is worth noting that the decrease in the number of organic farms was not associated with a decrease in their average area. According to the data of the Central Statistical Office, the average eco-area in Poland in 2020 was 27.4 ha, i.e. 0.2 ha more than in 2019 and 8% more than in 2013.

## Discussion

Organic farming is a way of producing healthy, high-quality food products in an environmentally friendly way. As Smoluk-Sikorska (2021) emphasises, the method has a positive effect on the soil by preventing erosion and helping to maintain fertility, biological activity, and diversity by avoiding chemicals. It may also be a way to reduce energy consumption and greenhouse gas emissions since the production of synthetic chemicals is highly energy-intensive. Organic farming, due to its labour-intensive practices, maintains and creates jobs and can contribute to the development of social capital and improvement of the situation of rural communities, in particular in naturally valuable areas and in areas with natural or other specific constraints (ANC). It also assumes the self-sufficiency of farms and a holistic approach by recycling organic waste in order to create a closed circulation of matter (Łukiewska & Chrobocińska, 2023). Organic farming is therefore perceived as one of the potential solutions to the problems resulting from the development of intensive agriculture. However, research by Ziętara and Mirkowska (2021) proves that over 80% of Polish organic farms conducted only vegetation production, which is inconsistent with the assumptions of organic farming.

As Klimczuk-Kochańska and Klimczuk (2020) point out, in addition to the obvious benefits, significant limitations to the development of organic farming must also be taken into account, mainly higher production costs resulting from, among others, increased labour inputs or lower effects of agricultural production, which in extreme cases may result in the lack of profitability of production. The limitations to the development of organic agriculture also include poor knowledge of the principles of starting and running an organic farm and underdeveloped markets for the purchase and processing of organic products (Zieliński et al., 2022). Moreover, moving away from conventional agriculture to organic farming could lead to a significant decline in production volume, threatening food security (Grzybowska-Brzezińska et al., 2023; Sadowski et al., 2021).

According to Miecznikowska-Jerzak (2022), economic and organisational factors have a greater impact on the functioning of agricultural farms than natural ones. However, some economists express doubts about special support for the development of organic agriculture. Other economists (e.g. Ziętara & Mirkowska, 2021) believe that organic farms should operate on market principles, and organic products should be subject to the laws of supply and demand. Therefore, only an increase in demand would justify the pursuit of an increase in organic production. In this context, an opportunity to stimulate the development of organic agriculture in Europe should be seen in the promotion of organic food and its identification with fashion for a healthy lifestyle (Abrar et al., 2016; Miyake & Kohsaka, 2020; Novytska et al., 2021; Chen et al., 2022). However, this would involve consumers accepting a higher price, which, given the current increase in inflation and prices of traditional food, seems difficult to implement (Runowski, 2009; Ziętara & Mirkowska, 2021; Runowski & Kramarz, 2022).



The literature on the subject indicates that an opportunity for the development of organic farming may be EU ecological payments, which are granted for the area of crops grown using organic methods, as well as professional agricultural consulting, the creation and support of operating companies purchasing and processing organic agricultural products, and the development of groups of organic producers. Creating a stronger negotiating position for organic agriculture producers with discount chains and large-format stores (Zieliński et al., 2022). Another recommended action that may support the development of organic farms may be combining organic production with agritourism activities, especially in areas with high tourist values (Zieliński et al., 2022). It is also worth mentioning flexible pro-ecological solutions, e.g. a system of direct payments in Switzerland for the provision of “ecological services”, such as: the use of appropriate soil protection systems and selected plant protection products, or the use of animal-friendly housing systems (Ziętara & Mirkowska, 2021).

## Conclusions

Organic farming is perceived as one of the potential solutions to the problems resulting from the development of intensive agriculture, including the decline in food quality and the deteriorating condition of the environment. The research shows that the largest area of organic crops was found in large agricultural countries of the EU, i.e. France, Spain, Italy and Germany. The advantage of these countries increased in the years 2015-2020 (increase in total share from 55.08% to 58.70%). By far the most farms conducting production in accordance with organic farming criteria were recorded in Italy. The only country that in 2020 exceeded the level of 25% of the share of ecological areas in the total area of the country recommended by the European Green Deal was Austria. In the entire EU, this level increased from 6.56% to 9.09% in the analysed period. In most of the countries analysed, there was an increase in the area of cultivation and the number of organic farms. The largest increase in area in the analysed period occurred in Romania and France, and the largest increase in the number of farms in Greece and Germany. However, a significant decline in interest in organic production was recorded among farmers in Poland.

The changes taking place in this area mean that the map of organic crops in Europe may change significantly in a few years. It seems that, compared to the size and capabilities of the European Union countries, their potential in the production of organic food is still unused, and organic production is niche. This state of affairs was probably significantly influenced by the geopolitical situation in Europe, contributing to the increase in the prices of production factors, the relatively low profitability of organic production and the growing inflation and prices of food products, which inhibited the demand for organic food. Existing barriers have contributed to little development and, in some cases, stagnation or even regression of organic farming in EU countries. In such a situation, it is worth considering taking actions to support organic farming and enable its development, as well as implementing other pro-ecological solutions.

The considerations undertaken did not take into account all aspects of the development of organic farming. Due to the importance of this topic, there is a need for further discussion in this area. In future research, it would be worth extending the analysis carried out by linking the results of organic farming with general economic indicators in individual Member States.

## The contribution of the authors

Conceptualization, K.Ł. and K.Ch.; literature review, K.Ch.; methodology, K.Ł.; formal analysis, K.Ł. and K.Ch.; writing, K.Ł. and K.Ch.; conclusions and discussion, K.Ł. and K.Ch.

The authors have read and agreed to the published version of the manuscript.

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## ROZWÓJ ROLNICTWA EKOLOGICZNEGO W WYBRANYCH KRAJACH UNII EUROPEJSKIEJ

**STRESZCZENIE:** Celem artykułu była ocena stanu i tendencji rozwoju rolnictwa ekologicznego w wybranych krajach Unii Europejskiej. W badaniu przedstawiono i porównano rolnictwo ekologiczne w 10 krajach UE, które charakteryzowały się największą powierzchnią upraw ekologicznych. Z przeprowadzonych badań wynika, że zdecydowanie największa powierzchnia upraw ekologicznych występowała w dużych krajach rolniczych UE, m.in. tj. we Francji, Hiszpanii, Włoszech, gdzie też było więcej gospodarstw ekologicznych. Jedynym krajem, który w 2020 r. przekroczył zalecany przez Europejski Zielony Ład poziom 25% udziału powierzchni ekologicznych w całkowitej powierzchni kraju była Austria. Niszowy charakter produkcji ekologicznej związany był m.in. z relatywnie niską opłacalnością produkcji i niskim popytem na ekożywność. W takiej sytuacji warto rekomendować działania wspierające rolnictwo ekologiczne, m.in. płatności ekologiczne oraz inne proekologiczne rozwiązania.

**SŁOWA KLUCZOWE:** powierzchnia upraw ekologicznych, liczba producentów rolnych, produkcja ekologiczna, UE