

**STUDY ON THE DYNAMICS AND TRENDS OF ORGANIC AGRICULTURE
DEVELOPMENT IN ROMANIA IN RECENT YEARS**

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Abstract

Organic agriculture plays a vital role in sustainable farming, economic development, and increasing interest in rural areas. Making the sustainability of the entire system the main aim of organic farming brings notable benefits, such as reducing reliance on high pesticide use, decreasing greenhouse gas emissions, and lessening negative impacts from excessive nitrogen fertilisation. Romania and other EU member states have embraced organic farming, focusing on harmonised legislation, expanding cultivated areas, and increasing the number of registered operators. The study highlights the importance of organic farming in addressing current agricultural challenges and underscores growing concerns about sustainability and environmental protection.

Keywords: *organic agriculture, natural resources, food safety*

Introduction

Agriculture and the food industry play a vital role in providing raw materials and high-quality food to ensure food security and safety (Ene and Matei, 2012). Efforts are currently underway to raise awareness that natural resources are not limitless and have a finite capacity (Marcu and Cercelaru, 2015). The development of human society, population growth, cultural progress, and especially advances in modern sciences and technologies have enhanced and diversified technical activities. In this context, society has led to the emergence and rapid increase of numerous harmful substances, which negatively impact life and the natural ecological balance, contributing to the pollution and degradation of water, air, and soil (Mateoc-Sîrb et al., 2024).

Intensive agriculture will increasingly impact the environment, and under these conditions, the organic farming system must play an essential role in ensuring the sustainability of food production. It makes important contributions by reducing dependence on high pesticide use, lowering greenhouse gas emissions, and mitigating the negative effects of excess nitrogen

fertilisation. Therefore, the main goal of organic farming is to maintain the sustainability of the entire system (Toth et al., 2016; Mateoc-Sîrb et al., 2022(a)).

Practising this type of agriculture offers a viable alternative to conventional farming, enabling a better balance between the quantity and quality of food and supporting people's health (Grad et al., 2014; Dumitru et al., 2019; Mateoc-Sîrb et al., 2022(a)).

Products from the organic farming system are not only healthy foods but also align with environmental conservation and contribute to sustainable development (Toth et al., 2016; Jurjescu et al., 2021; Țigan et al., 2021; Mateoc-Sîrb et al., 2022(b)).

There are significant differences between conventional and organic farming. Strict production rules and standards govern all steps in organic product cultivation, from land quality requirements to final product purchase (Venig et al., 2023).

In recent years, organic agriculture has experienced rapid growth worldwide. By 2016, it was practised in approximately 179 countries, covering 50.9 million hectares and involving 2.4 million organic farms (<https://www.fibl.org/fileadmin/documents/en/news/2017/mr-world-organic-agriculture-2017-english.pdf>).

The European Union's organic farming regulations aim to provide a clear framework for the production of organic products across the EU. They were developed to meet consumer demand for trustworthy organic products while ensuring a fair market for producers, distributors, and traders (https://agriculture.ec.europa.eu/farming/organic-farming/organics-glance_ro).

Materials and methods

The purpose of this article is to present the state of organic farming in Romania and the challenges it faces at the national level. The research employed the descriptive, analytical, and quantitative methods to present the findings.

Results and discussion

In Romania, organic farming has seen rapid growth in recent years. A key requirement for developing organic farming is promoting organic agriculture, so that consumers become aware of the benefits of organic products (<https://www.madr.ro/agricultura-ecologica.html>). Following a participatory process in September 2005, the General Assembly of IFOAM - Organics International approved the new Principles of Organic Agriculture (<https://www.ifoam.bio/why-organic/shaping-agriculture/four-principles-organic>).

The principles of organic farming aim to protect and improve the health of agricultural ecosystems by adopting practices that depend on natural processes and maintain ecological balance. They also encourage social fairness and responsibility in the relationships among producers, consumers, and the environment. Additionally, these principles advocate for the careful and sustainable management of resources, ensuring that agricultural activities meet current needs without compromising future generations' ability to do the same.

The organic farming area in the European Union has continued to increase since 2015, from 6.54% of agricultural land in 2015 to 10.5% in 2022 (Figure 1).

Regarding the area cultivated in accordance with the rules and principles of organic farming in the European Union, it has gradually increased over time, reaching 17.1 million hectares in 2022 (Figure 2.), which accounts for approximately 10.5% of the total area. In 2015, the 10.6 million hectares represented about 6.54% of the total area.

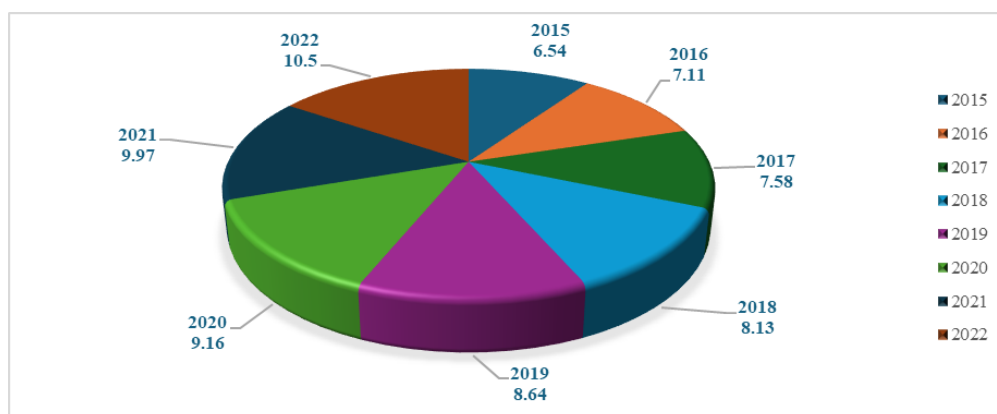


Figure 1. The share of the ecological surface at the EU level from the total agricultural land (%) (Adapted from <https://statistics.fibl.org/europe/key-indicators.html>).

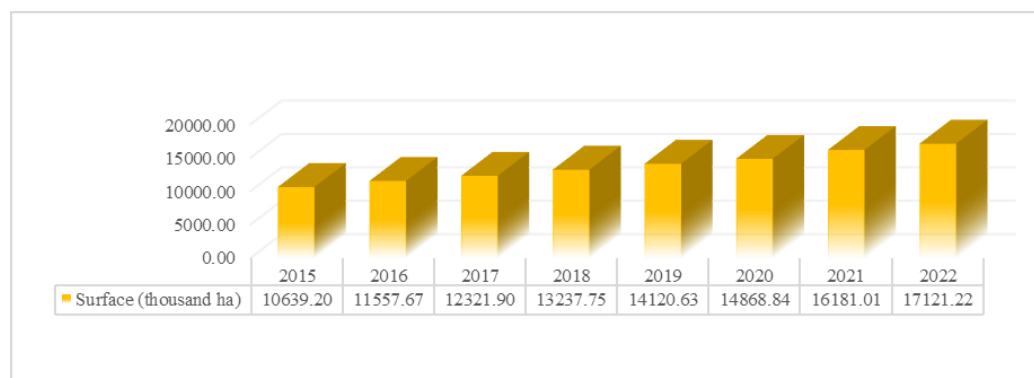


Figure 2. The evolution of the ecological surface (thousand ha) at the level of the European Union (Adapted from <https://statistics.fibl.org/europe/key-indicators.html>)

Regarding the total area dedicated to organic farming, in 2015 it was 245.92 thousand hectares. The area increased steadily until 2019, reaching a peak of 395.23 thousand hectares.

Figure 3. The dynamics of the ecological surface (thousand ha) in Romania and the share of the total agricultural land surface (%) (Adapted from <https://statistics.fibl.org/europe/key-indicators.html>)

A significant increase occurred in 2021, when the total area reached 578.72 thousand hectares. In 2022, it continued to rise, reaching 644.52 thousand hectares. These figures

reflect notable growth in the adoption of organic farming, with areas dedicated to expanding (Figure 3).

Table 1. The dynamics of the surfaces in organic agriculture in Romania (Adapted from <https://www.madr.ro/docs/agricultura/agricultura-ecologica/2024/dinamica-operatori-si-suprafete-agric-eco-2010-2023.pdf>)

Reference value	2015	2016	2017	2018	2019	2020	2021	2022	2023
Extent of land managed organically (ha)	245924	226309	258471	326260	395228	468887	578727	644520	693998
Total cereals (ha)	81439,5	75198,3	84925,5	114427,5	126842,95	134170,21	139378,2	160154,7	172283,8
Proteinaceous dried legumes for production of grains (ha)	1834,35	2203,78	4994,66	8751,13	7411,05	5709,97	5852,99	6365,45	8671,35
Total tuber and root crops (ha)	667,55	707,02	665,54	505,66	515,63	387,30	269,17	272,86	1024,17
Industrial crops (ha)	52583,11	53396,86	72388,33	80193,08	78350,29	91638,97	114407,78	116506,35	110200,73
Green harvested plants (ha)	13636,48	14280,55	20350,75	28253,75	37660,85	53718,20	74703,17	78241,68	91545,33
Other crops on arable land (ha)	356,22	258,47	88,25	112,79	2,07	0,00	190,18	157,86	375,07

Starting from 2016, the total area in organic agriculture continued to increase, reaching 694,000 hectares in 2023, of which nearly 25% was cultivated with cereals, nearly 16% with industrial crops, and almost 13% with green harvested plants (Table 1).

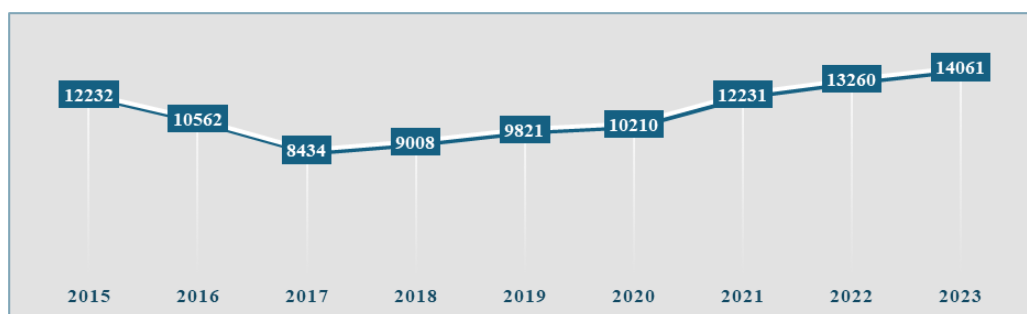


Figure 4. Romania's total number of certified operators in organic farming (Adapted from <https://www.madr.ro/docs/agricultura/agricultura-ecologica/2024/dinamica-operatori-si-suprafete-agric-eco-2010-2023.pdf>)

In 2017, Romania reported 8,434 certified organic operators, which increased to 9,008 in 2018 and to 14,061 by 2023. This steady growth trajectory underscores the expanding significance of organic agriculture in addressing contemporary challenges within the agricultural sector and reflects an enhanced societal commitment to sustainability and environmental protection (Figure 4).

In 2024, Romania's organic sector continued to rely on a group of accredited private control bodies authorised by the Ministry of Agriculture and Rural Development. These institutions

oversee the verification and certification of organic production, processing, and trade. Current data suggests that approximately 14–16 such bodies are active nationwide, ensuring adherence to EU organic regulations. Their activity is crucial for maintaining transparency in the sector, strengthening consumer confidence, and supporting the ongoing expansion of organic farming in Romania. Additionally, nine non-governmental organisations operate in organic agriculture, contributing to the development, promotion, and support of sustainable farming practices nationwide.

Non-governmental organisations involved in organic agriculture in Romania (<https://www.madr.ro/agricultura-ecologica/organizatii-non-guvernamentale.html>) play a key role in promoting and supporting the sector. Their main purpose is to raise public awareness of the benefits of organic farming, represent the interests of organic producers, and encourage sustainable agricultural practices. They provide technical and legislative support to farmers, contribute to the development of organic markets, and engage in environmental protection and biodiversity conservation. Through training programs, policy advocacy, research projects, and collaboration with certification bodies, these organisations help strengthen the organic sector and support the long-term development of sustainable and ecological farming systems.

Conclusions

Organic farming has become increasingly important in Europe, including Romania, as a response to the pressure exerted by intensive agriculture on agricultural resources and soil quality. Romania shows interest and positive developments in adopting organic agriculture. Romania and other EU member states have similarly adopted organic farming, highlighting the harmonisation of legislation, the increase in cultivated area, and the number of registered operators. The study emphasises the significance of organic farming in addressing current agricultural challenges and reflects the growing concern for sustainability and environmental protection. By safeguarding natural resources, enhancing health, and supporting local economies, organic farming is a practical solution to global environmental, health, and food security challenges. Investments in this sector contribute to building a more sustainable future.

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