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PROSPECTS FOR THE DEVELOPMENT OF THE ORGANIC MARKET IN UKRAINE IN THE CONTEXT OF THE EUROPEAN GREEN DEAL

Inna Honcharuk[1], Roman Lohosha[2], Dina Tokarchuk[3]

Abstract. The successful process of Ukraine's European integration is contingent on the rapid development of a new market segment: namely, organic products. This is regarded as a means of increasing the competitiveness of Ukraine's agricultural sector. Concurrently, the production of organic products assumes particular relevance when the state is expected to create conditions for the export of organic agricultural products to the EU. *The article is aimed* at studying the problems and prospects for the development of the organic market in Ukraine in the context of the European Green Deal. The *methodological approach* combines a comprehensive review of scientific literature, analysis of industry reports and case studies to assess the development of the organic market in Ukraine. *According to the results of the study,* Ukraine, following global trends, is gradually focusing on the development of various green sectors of the agri-food system, in particular, the production of organic agricultural products. The development of the organic market is based on organic farming. The area of land under organic farming in countries around the world is gradually increasing in parallel with the introduction of the latest technologies (sensor networks, control of soil moisture, soil temperature, CO_2 levels, etc.). At the same time, the number of organic producers is growing both in Ukraine and around the world. Organic products are becoming increasingly attractive to both European and national consumers. In Ukraine, the organic segment of the market is actively developing, as evidenced by the positive dynamics of the agricultural sector. However, a significant share of organic production is carried out uncertified, often without proper regulation. This makes it difficult to monitor this sector, which is mostly composed of farms and private households. Over time, the integration of such farms into the monitoring network will become necessary in the process of formalising the organic market, as the lack of certification limits prices and economic returns. Despite the challenges, including a full-scale war, Ukraine has preserved its organic sector, diversified production and attracted new players to the organic market. Reaffirming its focus on European integration, Ukraine has identified the strategic adaptation of its national organic legislation to EU norms as a key priority. For Ukraine, as an EU partner country, the European Green Deal creates additional opportunities for the development of the organic market. In addition, the European Union supports farmers who implement organic practices through subsidy and financing programmes, which can be an incentive for Ukrainian organic producers. The study found that the domestic market for organic products requires the creation of a modern infrastructure. At the same time, the domestic market of Ukraine remains under the influence of unregulated pricing mechanisms, which leads to overpricing and lack of stable demand for organic products. Further research in this area should focus on the peculiarities of the formation and development of the organic market in Ukraine, in particular from the perspective of small businesses in the context of European integration.

Keywords: organic products, conventional technologies, organic technologies, green economy, private households, costs, income.

JEL Classification: O13, Q13, Q16, Q51

[1] Vinnytsia National Agrarian University, Ukraine
E-mail: vnaunauka2024@gmail.com
ORCID: https://orcid.org/0000-0002-1599-5720
Web of Science ResearcherID: D-4512-2019
[2] Vinnytsia National Agrarian University, Ukraine *(corresponding author)*
E-mail: romanlohosha@gmail.com
ORCID: https://orcid.org/0000-0001-6462-5083
Web of Science ResearcherID: L-8376-2018
[3] Vinnytsia National Agrarian University, Ukraine
E-mail: tokarchyk_dina@ukr.net
ORCID: https://orcid.org/0000-0001-6341-4452
Web of Science ResearcherID: L-7586-2018

1. Introduction

The successful process of Ukraine's European integration into the global economic community is impossible without concerted efforts to produce high-quality and safe organic products in line with the European Green Deal. Ukraine has significant potential in this area. Against the backdrop of such changes, organic farming standards have been developed around the world to harmonise agricultural needs and environmental protection objectives. The creation of a new market segment for organic products, as well as the active growth in the number of organic production entities and the transition of a certain number of enterprises to organic standards, could be a promising step towards improving the competitiveness of Ukraine's agricultural sector. The production of organic products opens up new market opportunities for domestic producers in international markets, especially in the context of state support for the export of organic products to the EU. This applies to new markets that operate under different mechanisms than traditional ones. In addition, organic products contribute to improving public health due to the higher quality of food. Hence the urgency of finding the factors of competitiveness of domestic organic production.

The economics of organic farming is a fundamentally different system compared to conventional farming. It is worth noting that in the 60s and 80s of the twentieth century, a number of approaches to the requirements of such production were formed in the world, which often differ significantly. However, the issue of scientific substantiation of such philosophies and practices, such as the use of GMOs and many others, remains problematic.

The organic market in Ukraine has shown significant development in recent years, driven by the growing demand for environmentally friendly and safe products on both domestic and international markets. The European Green Deal, adopted by the European Union in 2019, has provided a new impetus for the development of organic production in Ukraine, as it sets ambitious targets to reduce the use of chemicals in agriculture, promote organic production and achieve carbon neutrality by 2050.

Organic production plays an important role in ensuring the sustainable development of the agricultural sector and preserving natural resources. The implementation of the European Green Deal opens up new opportunities for Ukrainian farmers to export their products to European markets, but it also requires adaptation to new environmental standards and regulations.

The article is aimed at studying the problems and prospects for the development of the organic market in Ukraine in the context of the European Green Deal.

2. Literature Review

A large number of Ukrainian and foreign scientists have studied the development of the organic market.

A number of researchers (Honcharuk et al., 2024; Shpykuliak & Bilokinna, 2019) have studied certain aspects of the development of organic production as part of the green economy and sustainable development. An analysis of the impact of organic fertiliser use on agricultural production is presented in (Pantsyreva et al., 2021). Honcharuk et al. (2024) focuses on the environmental modernisation of the energy security system, of which organic production is a component.However, research into the problems and potential for the development of organic production in the context of the European Green Deal requires further study.

Analysing the processes of formation and development of the organic market in Ukraine, it is worth noting that it still remains unconsolidated. There is also a low level of consumer perception of the importance and necessity of consuming organic products and their advantages over traditional (non-organic) products. At the same time, information and statistical databases that could be used to conduct in-depth scientific research both in Ukraine and in highly developed countries remain insufficiently complete and reliable. Nevertheless, the development of the organic market is one of the basic conditions for implementing the concept of sustainable development in the context of the European Green Deal.

According to the results of a study conducted by (Torres-Ruiz et al., 2018), the process of buying organic products on the organic market in Spain is complex, and the main problems are distrust in the certification of such products, as well as certain obstacles to their purchase. At the same time, there is a close connection between health and consumption of organic products (Eisinger-Watzl et al., 2015).

Organic agricultural production in the EU is a very complex, dynamic and insufficiently stable system, and the problem is not in increasing subsidies, but in its dynamics and internal motivation of organic consumers, which requires a comprehensive study of the organic market (Brzezina et al., 2017).

At the same time, the market for organic products in Ukraine is insignificant in terms of volume, and therefore there is no established developed infrastructure for its further development (Galutskikh & Didorchuk, 2024; Muller et al., 2017).

In addition, given that the organic market in Ukraine is very dynamic and growing every year, even despite the martial law in Ukraine, the processes of European integration of domestic producers in the context of the European Green Deal are becoming increasingly important. Currently, there are certain problems in this regard, in particular, due to the tightening of requirements for organic products for exporters (Fedchyshyn, 2020).

The development of the organic market is based on organic farming, as conventional agricultural production methods have led to both a decline in food quality and environmental degradation due to the use of mineral fertilisers, pesticides, herbicides, and the use of large volumes of GMOs in food.

As of the beginning of 2023, 96.4 million hectares of land were under organic cultivation in the world, which was due to an increase in organic acreage by 26.6% or 20.3 million hectares compared to 2021. Oceania accounts for more than half of all organic areas – 53.2 million hectares. Europe has 18.5 million hectares and Latin America has 9.5 million hectares under organic production. In terms of individual countries, Australia has shown tremendous growth (17.3 million hectares over the past 20 years) and remains the country with the largest area of organic agriculture at 53 million hectares at the beginning of 2023, followed by India with 4.7 million hectares (Global Organic Area Grows More Than Ever Before).

Over the past decade, the acreage of some organic fruit crops (apples, grapes) registered with the Federal Crop Insurance Programme has grown significantly in the US. These crops account for the largest share of all organic fruit crops in the programme. In 2021, more than 27 thousand acres of organic apples and more than 15 thousand acres of organic grapes were insured, representing more than 25% of the value of US crop production for these and other specialty crops (Organic fruits with the largest coverage in the crop insurance program).

In order to increase the efficiency of land use for organic production, the latest technologies are being introduced, such as sensor networks to monitor soil moisture and temperature, carbon dioxide levels and other parameters. The market for so-called "smart agricultural machinery and technologies" has also formed and is actively developing (Kaletnik et al., 2020; Smart Argiculture Market Size, Share, Growth Report 2030; The World Largets Market Research Store).

Another key global trend in the organic market is the growth in the number of organic producers, which in 2022 exceeded 4.5 million operators, and India remained the country with the largest number of organic producers – 2.5 million operators.

In 2022, the global organic market was worth almost 135 billion EUR, with the leading players being the USA – 56.6 billion EUR, Germany – 15.3 billion EUR and China – 12.4 billion EUR (FiBL Statistics). Studies have shown that the global market for organic products is growing by an average of 10% annually and is projected to reach approximately 220 billion USD by 2026 (Yatsenko et al., 2019).

The Swiss population spends the most on organic food, with an average of 437 EUR per person, while Denmark continues to have the highest share of the organic market at 12%.

The momentum of the organic sector is also evident in the various measures in support of organic agriculture. Many countries have launched action plans or other policy measures to promote organic production. This positive trend is reflected in the increase in the number of fully implemented national regulations for organic agriculture, which rose to 75 in 2023 (Global Organic Area Grows More Than Ever Before).

Organic production, as a modern global trend in agriculture and the food industry, is essential for implementing a sustainable development model and is one of the key areas of green agribusiness. Organic farming is in line with the global Sustainable Development Goals set for 2030 (Granovska, 2017; Lohosha et al., 2024). Simplistically, sustainable development can be seen as an institutional model that ensures a harmonious combination of economic growth, social integration and environmental protection. All this dictates the need to develop scientific foundations and efficient production of organic products in Ukraine.

3. Materials and Methods

To conduct the research, various methods were applied, such as comparison, induction and deduction, analytical, and statistical. The methodological approach combines a comprehensive review of scientific literature, analysis of industry reports and case studies to assess the development of the organic market in Ukraine.

4. Results and Discussion

The current state of the domestic and foreign markets for organic products is attracting more and more attention and requires research into the existing advantages, disadvantages and further prospects for its development.

The main objective of the development of the organic market in recent decades has been to increase the volume of competitive agricultural production of quality agricultural products. This two-dimensional goal is explained by the fact that in this particular industry, the category of "quality" is closely linked to the concept of "safety" of products. Many people have always sought to consume environmentally friendly food grown without the use of components that may be harmful to health or pose a potential threat. Given that chemical, radiation and other types of anthropogenic impact on the environment have been on the rise in recent years, which has a negative impact on human health, the issue of producing safe products is becoming increasingly important.

This trend coincides with the intensification of the Green Revolution in the second half of the XX century.

However, it should be noted that the history and philosophy of the issue have their controversial aspects. The implementation of the factors of the Green Revolution since the second half of the twentieth century, which contributed to solving the problem of hunger, at the same time led to new environmental problems. In particular, there was an accumulation of residual chemicals in food, soil, water and living organisms, which increased risks to human health. This sparked interest in alternative technologies that had different regulatory approaches but were united by the desire to minimise or eliminate chemical inputs in agricultural processes. One of these approaches is organic farming, which involves minimal tillage, the use of soil protection technologies, green manure, crop rotations with legumes that fix nitrogen, the use of exclusively organic fertilisers and the complete rejection of GMOs, chemical fertilisers and chemicalisation in crop production. In the 1980s, the organic market had already formed, offering environmentally friendly products at a higher price.

It is particularly important to emphasise that there is currently no definitive scientific evidence of the safety of organic products, and discussions on this issue continue from different perspectives. There are ongoing disputes between different alternative approaches to agricultural technologies (Dudar, 2013; Honcharuk et al., 2024). However, it is this ideology that has contributed to the formation of a clear economic trend – the steady growth of the organic market.

Despite the obvious logic of striving for a healthy lifestyle and environmentally safe food, information sources often focus on controversial aspects of organic agriculture, which, however, are not scientifically proven. Thus, the claims made in the literature about the possibility of achieving complete purity of organic products, increasing yields by improving soil fertility without the use of fertilisers and protection products, as well as other similar theses, are most likely emotional expectations rather than real results. However, the existence and rapid growth of the organic market in Ukraine is an important factor that the agricultural economy cannot ignore.

In recent decades, the global agricultural economy has been strengthening and gaining popularity for an innovative strategy of sustainable development that aims to achieve a balance between meeting the needs of the current generation and protecting the interests of future generations in the context of a safe and healthy environment. It is this concept of sustainable development that has contributed to the emergence of numerous eco-innovations (Lohosha et al., 2020; Kaletnik et al., 2021). Such innovations include the production of environmentally friendly products, the introduction of environmental and resource-saving technologies, the concept of a "green office", the principles of "eco-efficiency", the "clean production" model, international standards of eco-management and audit (ISO 14000, EMAS, etc.), methods of increasing resource productivity based on the MIPS concept, a new systemic environmental design, specialised product labelling and other initiatives aimed at improving the environmental safety of production and services while strengthening competitive advantage.

Ukraine's successful European integration into the global economy is impossible without proper coordination of efforts to produce high-quality and safe organic products, and Ukraine's potential in this area is significant. In the light of these changes, in order to harmonise the needs of agricultural production and environmental protection, organic farming regulations have been developed in a global context (Palamarchuk et al., 2021).

Today, the organic market is dominated by standards that require not only the use of organic fertilisers, but also the minimisation of chemicals at all stages of production, including manure management. This limits the conventional use of manure in most cases and also requires the use of environmentally friendly, including genetically unmodified seeds. An open question at the stage of organising an organic farm is the significant increase in problems associated with weeds, pests and diseases, which naturally leads to lower productivity, higher costs and lower overall revenues. These factors should be taken into account when pricing organic products, which is the first economic problem of this industry. In Ukraine, the process of addressing the issue of economisation of organic production is just beginning, given the uncertainty of demand, price proportions, export opportunities, etc.

Another important issue is compliance with the environmental requirements of organic production, including the correct choice of technologies, resources, types and varieties of products, as well as the suitability of the territory. The natural environment is a limiting resource for organic farming, and the ecological condition of agricultural land, logistics, financial and labour resources, as well as sales channels, all affect the development of the organic sector. The difficulty is that it is becoming increasingly difficult to find absolutely "clean" areas, as there are not only local sources of pollution, but also interstate and transcontinental transfer of pollutants that affect not only soils but also other natural components. Assessing the suitability of land for organic production requires information on land types, soil cover, agroclimatic conditions, erosion levels, land fertility, the presence of technogenically hazardous facilities and levels of air, water and soil pollution. In Ukraine, the potential of such areas is significant.

The organisational problem in the field of organic production is the issue of standardisation, which underlines the importance of the regulatory aspect. The specificity of organic production is that strict regulation of the process through the application of clear rules and standards, in particular with regard to the keeping of farm animals, the use of substances and processes of natural origin, not only brings economic benefits, but also helps to achieve the goals of preserving natural resources, biodiversity and supporting small producers. However, the problem is that state standards in this area are usually perceived with caution, and often the market ignores them. For example, back in the late 1980s, there were attempts to develop standards in agriculture in the former USSR, but they did not have much impact on the market. Instead, the business environment has long been developing its own, more stringent standards, which often have no direct link to government regulations, and this trend is typical for most countries. The same applies to control systems, which are cautious about relying on government agencies and their standards. The dualism between business and government regulation of organic production will become increasingly relevant in Ukraine as the market develops.

The main focus of government policy in organic farming is integration processes, including expectations of increasing exports. In Ukraine, for example, a programme for the development of vegetable production was developed by 2020, which envisaged the export of 3 million tonnes of vegetables. This included the introduction of stricter requirements for product quality and certification of growing technologies. The demand for organic products in the West is growing significantly, but so are the control requirements. According to this programme, it was planned that the share of organic vegetables would reach 10% by 2020, which would amount to 1.5 million tonnes (Korniienko & Rud, 2015). Although the reality of such figures may be questionable, it is important to note that the government's expectation is that demand for organic products will grow rapidly both in Ukraine and in other countries.

In 2014, the Law of Ukraine No. 425-VII "On Production and Circulation of Organic Agricultural Products and Raw Materials" came into force, creating conditions for the active development of the organic market in Ukraine (The Law of Ukraine "On Production and Circulation of Organic Agricultural Products and Raw Materials", 2013). However, Ukrainian producers mostly undergo organic certification through foreign certification bodies in accordance with international standards. Only 11% of certifications are carried out through domestic non-governmental standardisation bodies such as Bioline and Organic Standard.

The peculiarity of organic production is that there are many methodologically different approaches to the definition of organic farming, which has led to the existence of many different standards. Historically, these standards have emerged at the national level, and virtually every European country has its own regulations. Since the early 1990s, some of these standards have been implemented in Ukraine as part of various international projects, in particular through organisations such as USAID, FiBL, ICF COMMUNITY WELLBEING, GOMA, Equi Tool, IROCB, IFOAM, ABCert, Organic Standard, Austria Bio Garantie, Biokontrol Hungaria, BCS, CERES, ECOCERT, Lacon, ICEA, Bioagricert, Suolo e Salute, ETKO, CONTROL UNION, Ecpocert, NOH, JAS, Bio Suisse, KRAV and others. The scientific literature, in particular Bondarenko et al. (2023) and Kovalchuk et al. (2019), discusses these programmes and organisations in detail. An important practical problem is that Ukrainian organic producers are often certified according to numerous standards at the same time, which makes the process spontaneous and difficult to monitor.

Certification of organic production allows entrepreneurs to confirm that their farming practices meet the requirements of organic standards and provide access to the organic market, which greatly simplifies exports to European countries. Producers who pass the audit and receive a certificate are entered into the register of organic producers. Every year, these producers have to confirm their status – all technological operations for growing products must be recorded in a special journal to control the compliance of the technology with the requirements of organic production. This shows that organic business involves much more responsibility, which is one of the main organisational constraints.

Another significant problem is the provision of resources for organic production, in particular in terms of organic fertilisers. Over the past decades, manure harvesting and application in agriculture has declined significantly, reaching record lows. For example, 25-30 years ago, 9.5-10 tonnes of organic matter was applied per hectare of crop rotation, and more than 20 tonnes for vegetable crops, while in 2023 this dropped to 0.8-0.9 tonnes per hectare. Most farms are no longer engaged in livestock production, and the use of mineral fertilisers has increased dramatically, which is contrary to the principles of ecological development of the agricultural sector. Due to the lack of effective regulatory influence, these changes make it difficult to implement organic standards in practice.

An important aspect is the social context of the problem, which is the need to ensure an acceptable level of income for local communities where organic production is carried out. In Ukraine, there is a growing awareness that agricultural activities should take into account not only economic factors but also environmental and social issues, aiming to improve the welfare and development of rural areas, rather than their decline. In addition, it is worth paying attention to other constraints, such as low wages for organic workers, as the economics of such production are quite different from conventional agricultural production methods.

The introduction of organic agricultural technologies at agricultural enterprises in Ukraine faces a number of challenges. The main challenge is the need to comply with all technological standards related to organic production. In addition, the lack of a sufficient raw material base, especially under martial law, to ensure the country's food security makes it difficult to grow organic agricultural products. Another problem is the low solvency of consumers in Ukraine. For example, in 2022, the real income of Ukrainians decreased by 16%, which led to a decrease in demand for organic products (Honcharuk et al., 2024).

The main consumers of organic products in Ukraine are middle- and high-income people. Despite the fact that prices for organic products are much higher than for products grown using conventional technologies, more and more middle-income Ukrainians are choosing organic products (Federation of Organic Movement of Ukraine). This is due to the fact that they are aware of the health benefits of such a diet and perceive spending on organic products as an important investment. This category of consumers, together with high-income buyers and foreigners, forms a significant part of the organic market in Ukraine, which indicates the prospects for growth in demand for organic products in the future (Organic Standard Official Website).

To identify the target audience in the domestic organic market in Ukraine, the authors of the article analysed the social status of visitors to organic farming websites in the summer of 2023. Based on the data obtained, it was concluded that the bulk of the audience is made up of non-regular consumers (up to 85%) who are interested in organic products but have not yet started to consume them regularly. The target audience that regularly consumes organic products is about 7%, including pregnant women, children, sick people, etc. In addition, about 5% are wholesale and foreign customers who visit the sites for business purposes, and only about 3% are regular customers who lead a healthy lifestyle and regularly consume organic products.

According to the Ministry of Agrarian Policy and Food of Ukraine, as of December 31, 2023, the total area of agricultural land under organic production and transition period amounted to 471.2 thousand hectares (of which 390.9 thousand hectares were land with organic status and 80.3 thousand hectares were land in transition), which corresponds to only 0.9% of the total agricultural land area of the country (Fig. 1). Since the outbreak of military hostilities in Ukraine, the situation with the use of agricultural land under organic production has deteriorated, but in 2023 it improved significantly. At the beginning of 2024, there were 481 organic operators in Ukraine, of which 431 were agricultural producers certified in accordance with the equivalent standards of the EU Council Regulation (No. 834/2007 and NOP (USA)) (Ministry of Agrarian Policy of Ukraine).

In terms of regions of Ukraine, before the full-scale invasion of Russia, the largest concentration of certified land and operators was in Kherson Oblast (61.7 thousand hectares and 40 operators), Zhytomyr Oblast (38.7 thousand hectares and 26 operators), Odesa Oblast (35.2 thousand hectares and 37 operators), Cherkasy Oblast (36.1 thousand hectares and 17 operators) and Zaporizhzhia Oblast (44.1 thousand hectares and 17 operators). At the same time, organic agricultural production in Ukraine, as a type of green business, is gaining popularity and is most commonly practiced by farmers (Shpykuliak et al., 2023).

Prior to Russia's full-scale invasion of Ukraine, the domestic market was experiencing a trend of expanding the range of organic products, especially through major supermarket chains. A wide variety of organic products are now available in Ukraine, including milk and dairy products, vegetables, fruits, mushrooms, cereals and grains, flour, seeds, snacks, eggs, meat products, juices, beverages, pastas, canned foods, oils, spices and herbs, sugar, as well as other products such as bakery products, dumplings, honey, chocolate, tea and coffee. This range reflects the growing demand for organic products among Ukrainian consumers and the development of the organic sector in the market.

In 2023, Ukraine sold more than 10.1 thousand tonnes of organic products of its own production for a total value of more than 1 billion UAH, which was approximately 36 million USD (Table 1).

In 2023, the share of organic products in the domestic market of Ukraine was 3.8%, which indicates that consumption of organic products in Ukraine is significantly lower compared to EU countries. However, the domestic market for organic products continues to expand gradually, driven largely by leading supermarket chains expanding their range of organic products, thereby increasing their popularity among consumers. However, in order to accelerate the development of organic production in Ukraine, it is necessary to address the issue of creating a sufficient raw material base and increasing the solvency of the population.

Ukraine's organic sector has indeed demonstrated considerable resilience even in the face of war. It has managed not only to preserve the industry, but also to diversify its product range, which has helped to attract new players to the organic market. In 2023, exports of organic products showed positive dynamics,

Table 1
Dynamics of organic production development in Ukraine

Indicator	Year							
	2016	2017	2018	2019	2020	2021	2022	2023
Number of organic operators, units in total	426	504	635	617	549	528	462	481
of them are agricultural producers	294	304	501	470	419	418	380	431
Area of agricultural land (organic and in transition), thousand ha	381	289	309	468	462	422	263,6	471,2
Area of agricultural land with organic status, thousand ha	290	201	234	385	411	370	246,1	390,9
Domestic market: sales of organic products, tonnes	*	*	6700	7350	8778	9780	10165	10873
Value in million USD	*	*	21	24	26	33	36	41
Foreign market: exports, thousand tonnes	245,1	254	390	469	332	261	246	271
Value in million USD	78	102	157	189	204	222	219	244

Source: compiled according to the Ministry of Agrarian Policy of Ukraine

which was the result not only of the resilience of domestic producers, but also of an effective strategy to grow demand for organic products, especially in Europe. Ukraine has become the third largest supplier of organic products to the EU market, which is an important achievement given the challenges the country faces.

Ukraine's European integration course is actively supported, in particular in the field of organic production. One of the main priorities for 2024 is to adapt national organic legislation to European standards and requirements. This is an important step, as compliance with European standards allows Ukraine to strengthen its position in international markets. The representation of Ukraine at the international organic trade fair BIOFACH 2024 in Nuremberg, with the state logo for organic products, underlines the desire for international recognition and promotion of Ukrainian organic products on the global market (minagro.gov.ua/news/38-ukrainskykh-kompanii...).

Despite the border blockades and Russia's relentless attacks over the past two years, global demand for Ukrainian agri-food products, including organic ones, remains stable, and Ukrainian exporters are fulfilling their contractual obligations to supply organic products. Ukraine is the third largest importer of organic products to the EU, which confirms the responsibility of Ukrainian producers to their international partners and demonstrates their unwavering strength, diligence and reliability, despite the great difficulties caused by the war.

According to Organic Standard, 2023 was an important milestone for the Ukrainian organic sector, in particular due to a significant increase in exports of organic products. Ukraine exported 270.9 thousand tonnes of organic goods worth 244 million USD, which is more than in 2021 (261 thousand tonnes worth 222 million USD). A significant part of exports went to European countries, where Ukraine has traditionally had a strong position as a supplier of organic products.

Export volumes to Europe increased due to rail and road transport, although sea and air transport was significantly restricted due to the military situation. The largest markets for Ukrainian organic products were the Netherlands, Germany, Austria, Switzerland, Poland, Lithuania, the USA, Italy, the UK and the Czech Republic. This demonstrates the high level of trust in Ukrainian organic products in Europe and other parts of the world.

Among the most exported organic products were cereals such as corn, soya and wheat. Sunflower oil, oilcake, frozen blueberries, barley, rapeseed, millet and other products were also supplied to foreign markets. This diversification of exports allows Ukraine to maintain a stable demand for organic products and strengthen its position on international markets.

State support for the export of organic products from Ukraine is an important component of the country's organic sector development strategy. The Business and Export Development Office, established in 2019, plays a key role in promoting Ukrainian organic products on international markets. This institution actively contributes to the development of the potential of organic exporters and the formation of a positive image of Ukraine as a reliable supplier of organic products.

One of the main activities of the Office is the organisation of national pavilions at leading international trade fairs, which are important platforms for the promotion of organic products. Among such events are Biofach in Nuremberg (Germany), Anuga in Cologne (Germany), and Middle East Organic & Natural Products Expo in Dubai (UAE). These international events allow Ukrainian producers to establish contacts with foreign buyers, expand their presence on the global market and build trust in Ukrainian organic products. With the support of the Office, Ukraine's organic sector is actively developing, providing new export opportunities and at the same time increasing its international competitiveness.

On September 23, 2024, Ukraine celebrated the Organic Day with the EU for the third time in the format of an international conference, which is an important event within the framework of Ukraine's European integration strategy. This event is a testament to the consistent implementation of the EU Green Deal in the organic sector of Ukraine and will help raise awareness of organic products among consumers in Ukraine, promote organic production practices and consolidate the organic sector of Ukraine (minagro.gov.ua/news/ukraina-vtretie-vidznachyla...).

During the event, the participants learned about the latest news and analytics of the organic market, the state and trends of education and science in this area, and also recognised organic business personalities who have made a significant contribution to the development of the organic sector of the Ukrainian economy.

Being an EU partner country, the Green Deal creates additional opportunities for the development of the organic market in Ukraine, as Ukrainian organic products may be in demand on the European market. However, for this to happen, producers must meet strict environmental standards and product certification requirements. In addition, the European Union supports farmers who implement organic practices through subsidy and financing programmes, which may be an incentive for Ukrainian organic producers.

The Green Deal also promotes the development of the bioeconomy and circular economy, which creates new opportunities for Ukrainian farmers. The implementation of principles such as waste minimisation, the use of renewable resources and the recycling of agricultural by-products can help reduce costs and increase the competitiveness of Ukrainian enterprises on the international market.

In order to ensure environmentally sound development of agriculture, the Ukrainian government is adapting the legal framework, which includes:

1. The Law of Ukraine "On Basic Principles and Requirements for Organic Production, Circulation and Labelling of Organic Products" (Document 2496-VIII, current, edition of 27.05.2022) (The Law of Ukraine "On Basic Principles and Requirements for Organic Production, Circulation and Labelling of Organic Products").
2. The Law of Ukraine "On Alternative Types of Fuel" (Document 1391-XIV, current, edition of 11.11.2021) (The Law of Ukraine "On Alternative Types of Fuel").
3. The Law of Ukraine "On Alternative Energy Sources" (Document 555-IV, current, edition of 01.01.2023) (The Law of Ukraine "On Alternative Energy Sources").
4. Resolution of the Cabinet of Ministers of Ukraine and orders of the Ministry of Agrarian Policy and Food.

Concurrently, active public organisations and associations in Ukraine (namely, the International Association of Organic Production Participants "BIOLan Ukraine", the Union of Organic Agriculture Participants "Naturprodukt", the All-Ukrainian Public Organisation "Organic Farming Club", the Trading House "Organic Era", and others) are actively contributing to the popularisation of organic production in Ukraine. Their goal is to promote healthy and safe products that meet organic production standards.

Despite the existing challenges, the prospects for the development of the organic market in Ukraine are quite optimistic, especially in the context of Ukraine's integration into European markets and the implementation of the European Green Deal. The main areas of development of the organic market in Ukraine are as follows:

1. The demand for environmentally friendly products is growing both in Ukraine and globally, and this trend continues to grow.
2. Support from the EU, which provides significant support for the development of organic agriculture through various funding programmes that may become available to Ukrainian producers, allowing them to modernise production, introduce the latest technologies and meet European standards.
3. Expanding opportunities for exporting organic products to the EU. With the growing demand for organic products in Europe, this market segment will continue to expand, opening up new opportunities for Ukrainian exporters.
4. Developing the domestic market by raising awareness among Ukrainian consumers about the benefits of organic products, which will contribute to the growth of domestic demand through information campaigns and promotion of organic production.
5. Implementation of innovative technologies, such as precision farming, the use of drones to monitor crops, biological methods of pest control, etc., which will increase the efficiency of organic production and reduce its costs.

5. Conclusions

The domestic organic market has great potential for growth in the context of the European Green Deal and can be an important factor in improving the competitiveness of the agricultural sector. Current global trends that are driving the growth in demand for organic products point to significant potential for Ukrainian producers in this area. Given the ever-increasing focus on environmental aspects of production and consumption, Ukraine has the opportunity to integrate into global green markets by developing sustainable and environmentally friendly agri-food systems.

The key advantages of organic production for Ukraine include not only environmental benefits, but also economic potential, in particular through increased export opportunities. As consumer demand for organic products in the EU and elsewhere is growing, Ukrainian producers have a chance not only to supply the domestic market but also to enter new markets, particularly in countries where environmental standards are gaining ground.

Focusing on the development of 'green' sectors of the agri-food system is also in line with Ukraine's European integration aspirations, as the harmonisation of national legislation and compliance with international standards open up new opportunities for Ukrainian farmers seeking to become part of global environmental initiatives. This transformation of the agricultural sector in Ukraine, including the development of organic production, is an important step towards increasing efficiency, sustainability and competitiveness in international markets.

Despite challenges such as the lack of adequate state support in Ukraine, the high cost of certification and competition on the international market, there is a big problem with the correct monitoring of the farm and household sector, which are the dominant players on the domestic vegetable market. However, despite these challenges, despite the full-scale war, Ukraine has managed to preserve the organic sector, diversify organic production and attract new players to the organic market.

The production and sale of domestic organic products both on the domestic and foreign markets is of particular relevance when the government is expected to create the conditions for this. Organic farming is developing dynamically in Ukraine, and the area of land under organic farming is increasing every year. At the same time, innovative technologies for growing organic products are being introduced and the number of organic producers is growing both in Ukraine and around the world. Organic products are becoming increasingly popular among consumers both in Europe and Ukraine.

Ukraine reaffirms its European integration aspirations, prioritising the adaptation of national legislation in the field of organic production to the standards and requirements of the European Union. For Ukraine, as an EU partner country, the European Green Deal creates additional opportunities for the development of the organic market. To do this, it is necessary to improve the system of support for organic production at the state level, develop infrastructure and logistics solutions, promote organic products among the population and actively attract foreign investment and experience.

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