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# ORGANIC PRODUCTION AS A MODERN ECONOMIC MODEL AND POSSIBILITY OF SUSTAINABLE DEVELOPMENT OF AGRO-INDUSTRIAL COMPLEX

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## **Key words:**

organic produce, organic production, domestic market, export, financial aid, full scale invasion, consumption.

Before the full-scale invasion of the Russian Federation, Ukraine's reputation as a worthy exporter and producer of organic products was constantly improving and new levels were needed. Almost all Ukrainian organic operators are certified according to EU standards, some of them according to the National Organic Program of the USA (NOP), Canada (COR), Switzerland (Bio Swiss), Germany (Naturland), Japan (JAS) and Sweden (KRAV). The zone of growing organic products is far from industrial cities, residential areas, highways - that is, in ecologically favorable regions where there is no need to use hermetically modified organisms (GMOs), chemical impurities to stimulate growth, harmful substances and antibiotics. So, products obviously can not contain agrochemicals, because they are grown without their use. In their composition there is a full set of vitamins provided by nature. The cultivation itself takes place on clean land, the fruits are euthanized as much as provided by nature. Organic products have less water and a brighter pulp taste. The shelf life of organic products is much longer, because they better contain useful vitamins and substances. Ukraine has a large number of benefits for the cultivation and production of organic products, such as good geographical location, widespread black soil and the introduction of new climatically advantageous zones. Ukraine has clearly declared its leadership in the supply of organic products to the EU. In 2021, it ranked 5<sup>th</sup> overall and 1<sup>st</sup> among non-tropical countries in terms of product imports to the EU (according to the European Commission report) [10]. Despite the challenges that the agricultural industry has faced during the hostilities, Ukraine seeks to expand its capabilities through high potential and enter the international arena, as it is considered a global supplier and understands the importance of its place in ensuring a sustainable food system and security not only within the EU, but throughout the world.

## ОРГАНІЧНЕ ВИРОБНИЦТВО ЯК СУЧАСНА ЕКОНОМІЧНА МОДЕЛЬ ТА МОЖЛИВІСТЬ СТАЛОГО РОЗВИТКУ АПК

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### Ключові слова:

органічна продукція, органічне виробництво, внутрішній ринок, експорт, фінансова допомога, повномасштабне вторгнення, споживання.

До повномасштабного вторгнення рф репутація України як достойного експортера та виробника органічної продукції неспинно покращувалася та займала нові рівні. Майже всі оператори з органічної продукції України є сертифіковані згідно стандартам ЄС, деякі з них відповідно до Національної органічної програми США (NOP), Канади (COR), Швейцарії (Біо Свісс), Німеччини (Натурланд), Японії (JAS) та Швеції (KRAV). Зона вирощування органічних продуктів знаходиться далеко від промислових міст, житлових зон, автомобільних доріг – тобто в екологічно сприятливих регіонах, де нема ніякої потреби у використанні герметично модифікованих організмів (ГМО), хімічних домішок для стимулювання росту, шкідливих речових та антибіотиків. Отже, продукти свідомо не можуть містити агрохімікатів, адже вирощуються без їх застосування. В їх складі  $\epsilon$  повний набір вітамінів, що забезпечені природою. Саме вирощування відбувається на чистій землі, плоди приспівають стільки, скільки це передбачено природою. Органічні продукти відрізняються меншою кількістю води та мають яскравіший смак м'якоті. Строк збереження органічних продуктів набагато довший, адже вони краще утримують в собі корисні вітаміни та речовини. Україна має велику кількість бенефітів для вирощування та виробництва органічної продукції, таких як гарне географічне розташування, широке поширення чорноземів та впровадження нових кліматично вигідних зон. Україна чітко заявила про своє лідерство у постачанні органічної продукції до ЄС. У 2021 році вона посіла 5 місце загалом та 1 місце серед нетропічних країн за обсягом імпорту продукції до ЄС (за звітом Європейської Комісії) [10]. Незважаючи на проблеми, з якими сільськогосподарська галузь зустрілася під час військових дій, Україна прагне розширювати свої можливості через високий потенціал та виходити на міжнародну арену, адже вважається світовим постачальником та розуміє значимість свого місця у забезпеченні сталої продовольчої системи та безпеки не тільки в межах ЄС, але і в усьому світі.

### Formulation of the problem

The full-scale invasion of the Russian Federation on the territory of Ukraine on February 24, 2022 caused enormous losses to the organic sector of the Ukrainian economy, but could not knock it out of the export leaders. Of course, the occupation of most agricultural land, constant shelling and fighting in their territories, as well as problems with logistics should have a negative impact on the dynamics of organic production. But despite all this, for 8 months of the war, Ukraine delivered 24% more organic food compared to last 2021.

At the beginning of 2021, the Government (Cabinet of Ministers of Ukraine) approved a resolution on the National Economic Strategy for the period until 2030, in which it was planned to increase the export of organic products to 1 billion US dollars. US and increase organic area by 3%. The goals were set by the time of the full-scale invasion of the Russian Federation on the territory of Ukraine and, despite this, the plans of the employees of the Office for Enterprise Development and Export do not depart from the goals. They, together with partners, continue to actively work and develop the field of organic production [1].

It is important for Ukraine to maintain its position of organic export in the inter-family arena. For the Office for Entrepreneurship and Export Development, together with foreign and external partners, the task is to help Ukrainian organic producers, and work on the development and promotion of the organic sector: from improving the skills of producers to presenting the country's potential in foreign markets and improving the image of Ukraine as a reliable exporter and supplier of organic products with high added value.

## Analysis of recent research and publications

The issue of organic production of the country became the subject of research in the scientific works of such domestic and foreign scientists and economists: Yu.V. Slavgorod, which revealed the restraining factors of the development of the production of organic products, V. Grushko and O. Komelina, in whose work the organic market of Ukraine is analyzed, G. Kornienko, who was engaged in the legal regulation of relations in organic production, also A. Remizov, O. Deineko and S. Hungerbüler.

### Formulation of goals

The article is aimed at analyzing and describing the current situation in the organic sector of Ukraine and studying two periods: pre-war and a year after the full-scale invasion. The goal is to better understand the current situation in the country and explore all the changes that have occurred over the past year, the main trends and opportunities for the agricultural sector based on the analysis. Also make reasonable predictions about the need to introduce a number of measures in the areas of the organic sector of Ukraine.

#### Presentation of the main material of the research

In the late 1990s, the process of conscious organic production had just begun in Ukraine. Developing within the country, organic producers have gradually declared themselves in the international market of organic products, increasing the range of products offered, supply logistics and entering the world leaders in terms of the size of areas for organic production [4].

In recent years, Ukraine has progressively demonstrated the dynamics of growth and the number of areas on which certified cultivation of organic products is carried out, and the number of operators with producers and consumption of organic products by Ukrainians themselves. This is facilitated by the system of filling the domestic market with its own organic products by establishing the processing of organic raw materials (in most cases these are cereals – cereals, flour, dairy and meat products, eggs, juices, honey, oil, tea and medicinal herbs are also present). The dynamics of organic production development is shown in Fig. 1 and 2.

As of the end of 2021, the number of organic operators was 528, which is slightly less than 2020 (549 operators), among which there were 418 agricultural producers (419 in 2020). Operators include producers, processors, importers and exporters of organic pro-ducts (Fig. 1).

In general, from 2016 to the present, the quantitative development of Ukrainian organic production has been observed (Fig. 2). Organic products and sector integrity improved during the consolidation process. Organize a lot of activities to promote organic trade to promote organic production. During this period, an organic regulatory framework was created in the field of organic farming, circulation and labeling of organic products [5].

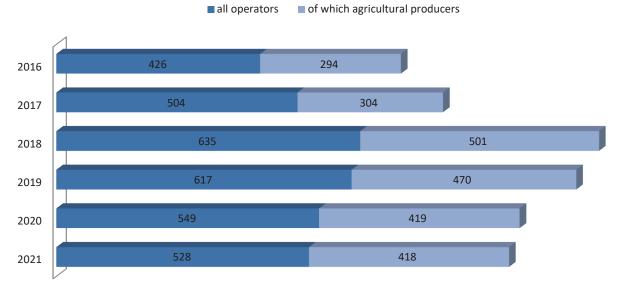


Fig 1. – Number of organic operators 2016–2021



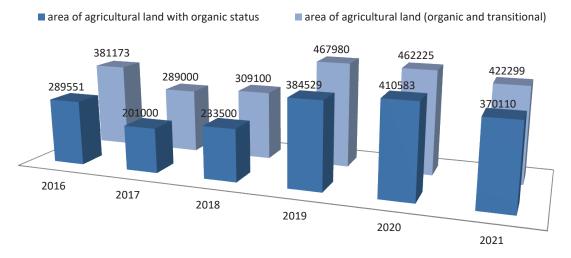


Fig. 2 – Total area of agricultural land and occupied for organic production, ha Source: compiled on the basis of the source [3]

In Ukraine, the share of organic agricultural land is 1% of the total agricultural area in the country. As of the end of 2021, the total area of organic agricultural land was 522.299 hectares (organic status – 370.110 hectares).

It is 2021 that has become an important stage for Ukrainian organic noodling. All the necessary by-laws for the implementation of the Za-kon of Ukraine No. 2496-VIII "On the basic principles and requirements for organic production, circulation and labeling of organic products" were adopted. Together with the law adopted on July 10, 2018, this is the legislative foundation of organic production, circulation and labeling of organic products in Ukraine [2]. But despite all the regulations adopted, the legislation of Ukraine on organic production, unfortunately, has not yet been fully implemented and requires additional amendments and changes to fully adapt to the organic legislation of the EU.

Despite this, over the past few years, Ukraine has become one of the most influential suppliers of organic products to Western markets among non-tropical countries. Thus, as of the end of 2021, according to the latest report on imports of organic agri-food products, 189.200 tons of organic food were imported to the EU.

Since the beginning of Russia's full-scale invasion of Ukraine, the Ukrainian organic sector, as well as the entire agricultural sector, have been suffering from Russian aggression. The agricultural sector suffers from the mining of fields, destruction of fixed assets, lack of fuel and vehicles, etc. Most of all suffered losses those areas that are located closest to the border with Russia and Belarus, as well as the south of Ukraine where a significant part of organic agricultural land was or is still under occupation. The most affected agricultural enterprises in Kyiv, Sumy, Kherson, Kharkov, Zaporizhzhya and Chernihiv regions. But despite the

losses, a large number of enterprises immediately after the de-occupation began to actively resume work, and some of them moved their production to other regions of Ukraine.

The state provided emergency financial assistance to the main participants of the orga-night sector to save and preserve business, to overcome the consequences of the current situation and to strengthen the capacity of the organic sector in the medium and long term: these are two grant programs. The first is "Support for the organic sector in Ukraine" [6] and "Emergency aid for organic agriculture in Ukraine" [7].

According to the results of the grant program "Support for the organic sector in Ukraine," about 120 manufacturers-operators received support for a total amount of \$350.000. USA. This amount was used to cover the costs of organic certification, the purchase of products from organic producers, the purchase of fertilizers and PPPs, and the funds were distributed for the further development of marketing in the domestic sector. A significant proportion of this support was provided by the OT4D and QFTP programs [6].

As part of the fundraising campaign "Emergency Aid for Organic Agriculture in Ukraine," initiated by the project "German-Ukrainian Cooperation in the Field of Organic Agriculture," 170 enterprises were supported: organic producers and organic sector organizations, for a total of 560.000 euros [7].

Among the producers of organic products, grants were received: "Ethnoproduct' – a producer of dairy ecleptic products [8], specialized stores "Natur Boutique" [11] and eco-hotels "Maison Blanche" [12], which operate in the organic market since 2008 and whose activities are directly related to health and organic products.

Innovation Development Center, Office for Entrepreneurship and Export Development, national project Action. Business together with Advanter Group analyzed sy-tuation in the organic sector in the fifth month of the war and established a possible plan for the implementation of the marketing strategy (as of summer 2022). More than 80 small and medium-sized

manufacturers-operators from 20 regions of Ukraine and small exporters were studied. According to the results, as of July 2022, 70% of operators fully or partially continued organic production and processing (Fig. 3) [3].

In the coming marketing season, the domestic market will be most influenced by the low purchasing power of the population (the reason is the income tax) and the decline in demand for organic products (the reason is the movement of the majority of the population abroad/other cities and disruption of supply chains) [6] (Fig. 4).

Also, low demand in the domestic market was affected by the closure of some retail chains and the tendency to change target markets. But it is important to understand that even before the occupation, the organic market was rather weak and needed support, and new circumstances worsen the situation and reduce the competitiveness of organic producers.

But despite all the above problems, Ukrainian manufacturers have found ways not to lose their ties with foreign partners. They did everything possible to establish new logistics routes for exporting products to the EU and Switzerland, so in the first eight months of 2022, products were sent to these countries for almost the entire 2021 (Fig. 5). EU countries also helped Ukrainian agricultural producers, so from-mine import tariffs and duties on Ukrainian products entering the EU were important for Ukraine because of the simplification of exports of organic products.

State experts predicted that the total volume of exports of organic products and its value in 2022 will be higher than in 2021, even despite the fact that most Ukrainian seaports remained blocked, and the markets of the USA and Canada are still inaccessible.

According to the data, Ukraine managed to export to the EU countries in the first 8 months of 2022 more than in the same period of 2021 (Fig. 6). Analyzing these statistics, you can divide it into the following periods:

- the beginning of the year almost the same indicators of export volume;
- the first months of occupation a period of uncertainty;

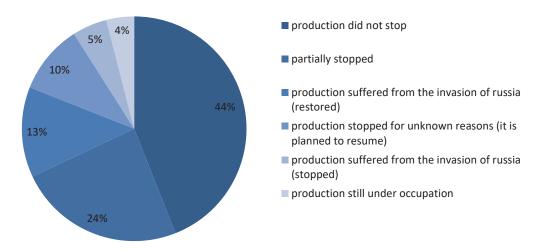


Fig. 3 – Condition of farms/enterprises (July 2022)

Source: compiled on the basis of the source [3]

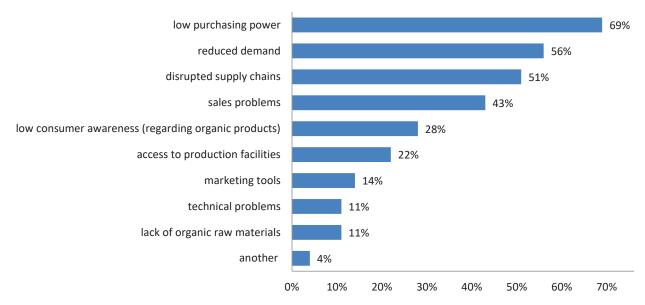


Fig. 4 – Problems/needs related to the sale of organic products in the marketing and marketing season 2022/2023 Source: compiled on the basis of the source [6]

## 2021 (12 months)

- The total value and volume of exports of Ukr. organic products: 190 million dollars. USA, 260,000 tons;
- Export of organic products to the EU: \$160 million USA, 190,000 tons;
- Export of organic products to Schweiziria: \$7.3 million USA, 11,000 tons.

## 2022 (jan-aug)

• Total value and volume of

exports of ukr. organic products: no data

- Export of organic products to the EU: 116 million USD USA, 147,000 tons;
  - Export of organic products to

Schweiziria: \$5 million USA, 11,000 tons.

Fig. 5 – Comparison of the value and volume of exports of Ukrainian organic products in 2021 and 2022 Source: [9]

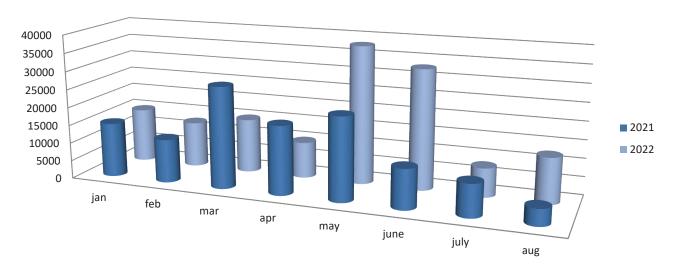


Fig. 6 – Dynamics of organic exports from Ukraine to the EU

Source: compiled on the basis of the source [9]

• since May – adaptation to new realities and a significant jump in the ex-port in 2022 compared to the same period in 2021.

The reasons for the export growth are a very good harvest of organic products in Ukraine in 2021 (the export of the 2021 harvest continues). The logistic problem with seaports was solved by finding a similarly convenient method – railways or road transport (then transportation takes place in small quantities). Ukrainian exporters and their international buyers managed to take advantage of all types of transportation and even increase the volume of exports of organic products for each type of transport (Fig. 7).

Ukrainian export operators are still looking for various new logistics solutions to deliver their products, and the Ukrainian government is facilitating and supporting this process. Exporters are considering the possible development of infrastructure projects on the territory of neighboring states (in particular EU members), which could reduce the level of risks that are possible in the implementation of exports and contribute, at least a little, to solving logistical problems. Ukraine remains an active player in the international market and a reliable supplier of organic products, seeking

and finding various export opportunities, as well as establishing partnerships.

Summarizing all the above, we can conclude that, of course, now the agro-industrial complex of Ukraine and its constituent organic production is in difficult conditions, but continues to work, create new products and look for new opportunities for further development and strategic partnership.

#### Conclusions from the study

It is important to understand that at the state level Ukraine holds its leading positions and leaves organic production one of the priorities for the development of the agro-industrial sector. The state is expected to introduce support, because both before martial law and during the organic sector needs it. External and internal assistance in the form of new grants, cooperation with foreign partners and financing should be expected.

For the country, the main understanding of the importance of supporting the organic sector both inside the country and in the international arena. Support from abroad can be realized if systematic cooperation between Ukrainian participants in the organic sector and international partners is achieved.

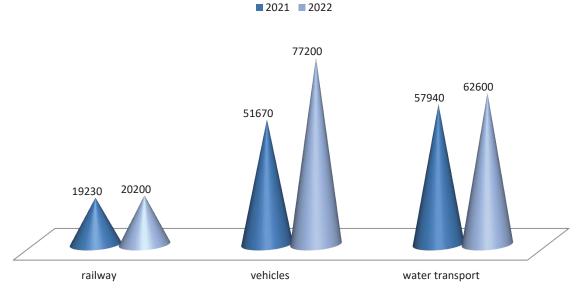


Fig. 7 – Export of organic products from Ukraine to the EU and Schveytsaria, tons

Source: [9]

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