

# MAIN ASPECTS OF THE MANUFACTURER OF ORGANIC PRODUCTS IN UKRAINE

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The article is devoted to highlighting the state and prospects for the development of organic production in Ukraine. The main requirements for the production, classification and labeling of organic products of animal and plant origin are presented. The current legal norms governing their certification and circulation are emphasized. The key provisions regarding evaluation and regulation in this field of activity are reflected. The stages of improvement of the domestic legislative framework of organic production are shown on the way of adaptation to European standards.

*Purpose.* To highlight the state and prospects for the development of organic production in Ukraine and the improvement of the legislative framework of organic production on the way to adaptation to European standards.

*Materials and methods.* Methodical analysis and abstract-logical method for summarizing the criteria for evaluating the formation, development and integration of domestic organic production into the structure of the world production of safe products of animal husbandry and crop production.

*Results.* The article describes in detail the development of the organic movement, which is a promising lever for food security in Ukraine. Therefore, the work on the legal regulation of the activities of domestic producers of organic products does not stop. The legislation is improving in the direction of introducing effective state support in this area at the regional and national levels. Of course, organic feed production, animal husbandry and crop production will continue to exist in parallel with non-organic production. However, the principles and relationship of these systems will depend significantly on the availability of energy sources, plant protection products, fertilizers, soil fertility, care for the preservation of the natural environment, ensuring welfare population and its needs in healthy nutrition. In addition, for the restoration of agricultural lands, demining and bioremediation with the use of bacterial and phytoremediation of soil and water resources should be applied. For this, after the liberation of our state, a return to the peaceful management of the national economy is necessary. We believe in the victory and restoration of Ukraine with the help of allied states and people of good will.

**Key words:** organic products; certification; marking; European standards; legal principles of organic market regulation.

One of the conditions for Ukraine's accession to the European Union is compliance with the requirements of international standards in the production of agricultural products [1]. For the certification of any organic product, safety criteria must be taken into account, while legal acts are used, which establish requirements for state regulation in the field of its production [2]. Legal norms are often overlooked and state regulation

of the production of organic products relies on business standards, which are easier to apply and harmonize with international requirements. In this regard, in 2014 the Verkhovna Rada of Ukraine adopted the Law "On Standardization", and in 2017 — the Law "On State Control of Compliance with the Legislation on Food Products, Feeds, Byproducts of Animal Origin, Health and animal welfare" [3]. According to these Laws,

the effect of current national and international standards on agricultural products was simultaneously recognized in our country, along with this, their harmonization took place — in accordance with European norms, the basic principles in the field of agricultural production and criteria for control over the quality and safety of products were defined, and the requirements were regulated regarding environmental protection.

The quality of products of animal origin is definitely affected by the standards relating to feed, compound feed and feed additives. The quality of agricultural products depends on the machines and equipment used in the production process, as well as on the use of fertilizers, technologies for growing, harvesting, transporting and storing the crop, methods of its processing and sale [4, 5]. In this regard, technical committees for standardization constantly update the requirements for evaluating quality indicators and technological characteristics of manufactured products, make corrections in the division into commodity varieties, classes or groups. When developing standards for livestock products, the effect of biological, chemical, and soil factors must be taken into account [6].

The increase in requirements encourages manufacturers to reorient themselves to international standards, to produce higher quality and safer products, along with this, the share of farms engaged in organic production is growing. However, the development of this segment of production faces certain difficulties, the biggest problem is the low purchasing power of the population and the level of consumer awareness of the range of organic products, therefore domestic production facilities are mainly oriented towards export [7, 8]. This is facilitated by the conclusion of the Association Agreement with the European Union in June 2014 and the introduction of a free trade zone between Ukraine and the EU in January 2016, and with Canada in August 2017. It should be noted that in January 2021, the “Agreement on political cooperation, free trade and partnership between Ukraine and the United Kingdom of Great Britain and Northern Ireland» entered into force. It is known that Great Britain is the TOP importer of Ukrainian organic products and is currently introducing its own organic certification system, which accordingly increases the requirements for Ukrainian products [9].

Obviously, in the future, the volumes of organic production will not only grow in the world, but will also occupy a significant

share in the agro-industrial complex of our country. Thus, the combination of traditional and organic production systems with science-based technologies will contribute to the development of Ukraine’s economy.

To highlight the state and prospects for the development of organic production in Ukraine and the improvement of the legislative framework of organic production on the way to adaptation to European standards.

## Materials and Methods

Methodical analysis and abstract-logical method for summarizing the criteria for evaluating the formation, development and integration of domestic organic production into the structure of the world production of safe products of animal husbandry and crop production.

## Results and Discussion

According to research by the European Crop Protection Association (ECPA), 45% of respondents prefer to purchase organic products, but only 28% have an idea of what is actually included in the term «organic» and what fertilizers and plant protection agents are used in organic production [10]. According to the definition of the International Federation of Organic Agricultural Movement (IFOAM — Organics International), “organic agriculture is a production system that supports the condition of soils, ecosystems and people. It depends on ecological processes, biodiversity and natural cycles that are characteristic of local conditions, but avoid the use of non-renewable resources. Organic agriculture combines traditions, innovations and science to improve the state of the environment, to develop relationships and ensure a decent standard of living” [7].

In general, all organic production is based on obtaining ecologically safe products, using substances and processes of natural origin without genetically modified organisms (GMOs) and non-specific chemical elements, and animal rations fully include organic feed [11]. This usually requires rational forms of production management, the introduction of resource-saving technologies, the use of harmless processing methods that ensure the preservation of the organic integrity and nutritional value of the product at all stages of the production process, the acquisition of the latest equipment, the use of microbiological preparations, the creation of highly productive varieties and hybrids of plants, new breeds of animals and birds [4, 12, 13].

The production of organic products involves methods that:

- provide for the use of food products, fodder, additives, fertilizers, plant and soil protection preparations, seeds, microorganisms and livestock products free from GMOs and their derivatives;
- exclude preservatives, chemically synthesized dyes, flavorings, stabilizers, flavor enhancers, hormones, antibiotics and growth stimulants;
- not related to the use of ionizing radiation treatment of raw materials or feed;
- use living organisms and mechanical production;
- provide plant nutrition through the soil system;
- include preventive measures [2].

Products that contain at least 95% by weight of organic ingredients (not including the share of water and kitchen salt) and up to 5% of permitted inorganic components in the maximum permissible quantities are considered organic, and this is confirmed by a certificate, a state logo with the inscription «organic product» (Fig. 1) [5, 6]. The logo of organic products is not allowed to label products obtained through non-organic production [14]. Transportation of such products takes place in packaging, containers or vehicles, which makes it impossible to replace them without damage to the seal, they are stored in warehouses separately from inorganic ones.

In the countries of the European Union, the official logo “Eurolist” has been adopted to denote organic products (Fig. 2). Products of animal husbandry, beekeeping, aquaculture, crop production, forest products, etc., are subject to labeling, provided there is a certificate of conformity issued by certification bodies [10]. In order to inform the consumer, the packaging is marked in accordance with the legally defined standards. The label contains information on the code number of the control body, the method of



Fig. 1. Ukrainian logo for marking organic products

organic production, and data on the country of origin of the organic product [15].

In addition to the fact that organic production is based on the principles of public health protection, it provides for the protection of the environment, cares for the preservation of the soil structure, and promotes the development of flora and fauna [16]. In general, organic and ecological certification systems are fixed at the legislative level and are interconnected, although they have different requirements for assessment bodies and criteria for determining the conformity of products. The logo of the environmental certification body, which is used to mark goods and services, is a “green crane” (Fig. 3) [6]. In organic production, it is very important to adhere to current canons and produce products according to standards. In various countries of the world, it is customary to use the following private logos (Fig. 4) [17] to denote organic products.

In the transition period before the full implementation of the system, 85% of feed for ruminants and 80% of feed for non-ruminant animals must be produced according to organic production standards with the use of approved additives and substances [11]. During the processing of livestock products, it is allowed to use antioxidants, dyes and flavorings of natural origin, enzymes, probiotics and microorganisms are not prohibited. Marking of such products is carried out with the state logo “product at the stage of transition to organic production” [18].

It should be noted that for the first time domestic organic products appeared on the shelves relatively recently. This was facilitated by the creation in 2007 of the Ukrainian accredited body — “Organic Standard”, which certifies organic products [7, 19]. Until now, the certification of Ukrainian enterprises working in this sector of production was carried out by foreign organizations. Therefore, Organic Standard Limited Liability Company (LLC) became the first and only domestic certification company in Ukraine with its own logo (Fig. 5).



Fig. 2. Logo of the European Union for labeling organic products

“The Organic Standard united the leading Ukrainian organizations working in the field of organic production”.

The mission of “Organic Standard” LLC is work related to the certification of organic agriculture and animal husbandry. The company provides producers and consumers of organic products with professional certification and information services, promotes the development of domestic and foreign organic markets, ensures their financial stability and profitability [19]. With this in mind, international experience is implemented for certification on a permanent basis.

In general, the creation of standardization bodies in Ukraine became possible thanks to the international technical and financial support of Switzerland, in particular the State Secretariat for Economic Affairs (SECO) and the conclusion in 1997 between the governments of both countries of the Treaty on Cooperation, according to which the development of the joint Ukrainian-Swiss project “Development organic market in Ukraine” [20]. Since 2019, Ukraine has been participating in the implementation of the joint program with Switzerland “Development of trade with higher added value in the organic and dairy sectors of Ukraine” (Quality FOOD Trade Program) [17].

Today, “Organic Standard” LLC is included in the official list of certification bodies that are recognized not only in Switzerland, but also in a number of European Union states, is a member of the Association of Accredited Certification Bodies (IASC) and the European Association of

Organic Certification Bodies (EOCC). According to ISO 65 standards, it is accredited by the International Federation of Organic Agricultural Movements (IFOAM) [30, 36]. The responsibilities of “Organic Standard” LLC include the certification of products of animal husbandry, beekeeping, aquaculture, crop production, wild plants, processing and marketing products, plant protection products and fertilizers, which are allowed to be used in organic production and according to the assessment meet the requirements of Ukrainian standards “BIOLan” and international standards: Switzerland, USA, Japan, and EU countries [15, 22, 23].

It should be noted that «BIOLan» standards regarding organic production and labeling of products appeared due to the adoption by the Council of the European Union of Resolution No. 834/2007, which concerns organic production and labeling of organic products [9, 10]. At the same time, the basic standards of the International Federation of Organic Agriculture and Bio Suisse Organic Standards from the Association of Swiss Organic Producers were taken as a basis [24]. Also, the Ministry of Economic Development, Trade and Agriculture has developed a regulatory framework for organic production, which was formed with the technical support of Germany. Considering that Germany is the leader in Europe and the second country in the world in terms of sales of organic products, in 2016 the joint Ukrainian-German project “Organic Agriculture” was initiated, thanks to which a platform was developed for the training of specialists in this field [25]. Since then, the German Federal Ministry of Food and Agriculture has initiated financial support in Ukraine for five cooperation projects aimed at introducing modern technologies in this field.

Obviously, the further development of the organic movement was facilitated by the adoption in September 2013 of the Law of Ukraine 425-VII “On the Production and Circulation of Organic Agricultural Products and Raw Materials”, which entered into force in January 2014. The document regulated



Fig. 3. Logo of the environmental certification body



Fig. 4. Logos of regional, national and private organic labeling systems





*Fig. 5. Logo of the first Ukrainian accredited standardization body*

the basics of conducting organic agriculture, defined the requirements for cultivation, production and processing of organic products, their transportation, storage, labeling, certification and sale [26]. However, the ineffective system of protecting consumers from low-quality and dangerous food products, the imperfection of certification bodies, as well as the difficulties of state bodies in monitoring the quality of products and detecting counterfeits — significantly slowed down the progress of the Ukrainian organic movement, and created great competition between producers and sellers of pseudo-organic products, it was used in the domestic market and entered foreign markets, which discredited the domestic industry at the international level.

An important aspect in the growth of the organic market is the development of a legal framework to ensure the activities of domestic producers in accordance with organic standards and under the control of certification bodies. Until August 2019, the provisions of the Law of Ukraine “On the Production and Circulation of Organic Agricultural Products and Raw Materials” adopted in 2013 were in force. However, its obvious imperfection and the desire to adapt Ukrainian legislation to the requirements of the legal regulation of the European Union prompted specialists in this field, with the support of the public sector and the executive power, to simultaneously develop and adopt in July 2018 Law of Ukraine 2496-VIII “On the Basic Principles and Requirements for Organic production, circulation and labeling of organic products” [27]. European Union directives on organic production were written into the new Law, which made it possible to better implement European criteria into the domestic legal framework.

This Law regulated the norms of labeling and circulation of organic products. Its provisions improved the principles of certification and changed the requirements for certification and inspection bodies, established responsibility for violations of legislative principles in the field of production, circulation and labeling of organic

products. Instead, articles were removed from the legislation in accordance with international legal norms, which were supposed to carry out a preliminary assessment of the suitability of land for organic production. Objects of organic crop production (seed production and nursery production), livestock production (poultry farming, beekeeping), mushroom production (including yeast production), aquaculture, seaweed, food products (wine production) and fodder are covered by the Law [3]. The activities of the certification bodies have extended to the primary production of organic products, including their harvesting, harvesting, preparation, processing, processing, mixing, restoration, filling and packaging. The law regulated relations in the field of production of organic products that are in circulation, imported or exported through the customs territory of Ukraine.

In this context, in 2020, the State Service of Ukraine for Food Safety and Consumer Protection (State Food and Consumer Service) launched the List of foreign certification bodies [28, 29]. Central executive bodies were entrusted with the responsibilities of forming and implementing state regulation of the safety and quality of organic products, maintaining the List of foreign bodies and the Register of domestic certification bodies, exercising control over organic market entities. According to the current Law, the subject of certification of organic production, circulation and labeling, whose organic products meet the standards recognized by other states or international organizations, can additionally conclude an agreement with foreign certification bodies available in the List [27]. At the same time, it is allowed to conclude a contract for one branch of organic production with only one domestic certification body. The certificate is valid for 15 months from the date of issue, and 6 months before the expiration date, the manufacturer informs the certification body of the intention to renew it. Distributors of such products must have originals or copies of certificates that allow establishing their origin and compliance with the requirements of legislation in the field of organic production.

Organic market operators (producers) undergo annual monitoring, scheduled and unscheduled control by the State Production and Consumer Service regarding compliance with organic production standards [28]. The activity of operators is periodically checked by taking samples of finished products or raw materials for laboratory tests. If it does not meet the requirements of the legislation, the supervisory

body issues a prescription to eliminate violations or acts (resolutions, decisions) regarding the recall and/or removal of such products.

According to the Law, for the sale or introduction into circulation of products that do not have a certificate of compliance with the requirements of organic production, circulation or labeling, as well as for violators who did not fulfill or untimely fulfilled the prescriptions or administrative acts of state supervisory bodies — legal entities are subject to a fine in the amount of eight, and five minimum wages for individual entrepreneurs [3, 9]. For the absence, untimely provision of information or false information regarding the volumes of organic products put into circulation, fines are also provided — for legal entities five, and for individual entrepreneurs — in the amount of three minimum wages.

Certification bodies are also responsible in the field of production, circulation and labeling of organic products: for failure to provide, untimely provision or inaccurate information about issued certificates — a fine of five, for non-fulfillment or untimely fulfillment of prescriptions or administrative acts to eliminate violations of legal requirements — eight, for illegal issuance of a certificate — sixteen, and for repeated illegal issuance of a certificate — in the amount of twenty-four minimum wages [9].

As the analysis showed, the volume of consumption of organic products increases every year, accordingly, organic production grows (Fig. 6), and the pace of its development in Ukraine is 4.9 times higher, in accordance with the world and 5.5 times more than in Europe [30]. In general, the domestic Ukrainian consumer market of organic products is estimated at almost 18 million euros, while per capita consumption did not exceed 0.5 euros. On the other hand, the export potential of our country in this sector of the economy is about 50 million euros and according to the estimate of “Organic Standard” LLC, it may reach 150 million euros in

the future [19]. More than 400 types of organic products are produced in Ukraine, 10% of the sales volume is on the domestic market and 90% is on export [31]. According to the data of “Organic Standart” LLC, the main importing countries of Ukrainian organic products are: the Netherlands, Germany, Great Britain, Austria, Poland, Italy, Switzerland, Belgium, the Czech Republic, Bulgaria, France, Denmark, the USA and Canada, in total more than 200 countries of the world [19]. Ukraine ranks 4<sup>th</sup> in the world in terms of export of organic products to the European Union, after Ecuador, the Dominican Republic and China [7].

The main exported products are: grains (wheat, spelled, barley, rye, oats, millet), oilseeds (sunflower, corn, rapeseed), legumes (soy, peas), nuts, seeds of pumpkins, sunflower, flax, mushrooms, berries, fruits, medicinal herbs, spices, a total of over 80 names of organic products [8, 32]. About 99% of organic wheat grain goes to the EU countries. According to the data of the independent international Research Institute of Organic Agriculture (FiBL), there is a dynamic trend towards an increase in the share of semi-finished and processed products: cereals, flour, pasta, dairy and meat products, juices, concentrates, jam, oils, tea, chocolate [20].

In 2017, Ukraine exported organic honey for the first time, and in the following years, the volume of its supply amounted to more than 300 tons [30]. On the European market, the main exporter of organic sugar is LLC “Deddens Agro”, its sales volume exceeds 800 tons. The supply of organic raspberries to the European Union has reached 400 tons in recent years, and the export of blueberries, elderberries, and blackberries has been established [7, 8].

Another driver of the organic market of Ukraine was the Law “On Amendments to the Law of Ukraine “On State Support of the Agriculture of Ukraine” and other laws of Ukraine regarding the functioning of the State Agrarian Register and improvement of state

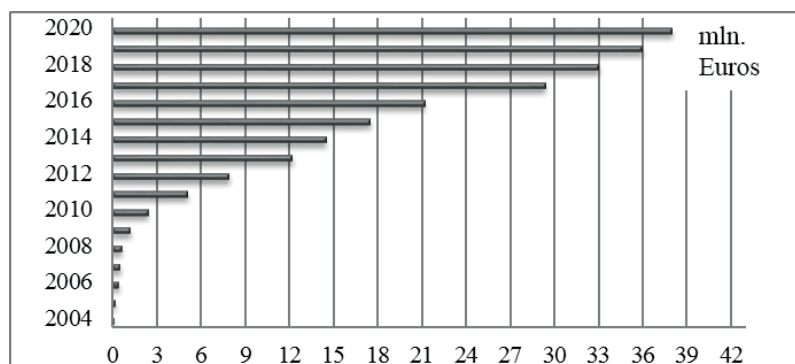


Fig. 6. According to the data of IFOAM and the Federation of Organic Movement of Ukraine

support for producers of agricultural products» adopted in November 2020 [9]. According to the Law, producers of organic products can apply for state subsidies for cultivated land and keeping cattle. Compensation of up to 30% of costs for certification of organic production is provided at the expense of budget funds. State support also refers to reimbursement of up to 30% of the purchase price allowed in this area of plant protection products, seed material, fertilizers and feed.

Today, the structure of Ukrainian organic livestock production is dominated by milk production, in particular, a prominent place in the domestic market is occupied by the certified line of lactose-free products of the company “Organis milk “O” [29]. It should be noted that high production costs make organic meat an expensive product, correspondingly less popular among Ukrainian consumers. In this segment, beef and veal are the most represented — 41%, as well as pork — 28%, chicken has smaller production capacity, because poultry farms traditionally specialize in the production of egg products [31]. However, in this regard, everything is not so clear, organic egg in Ukraine is not among the top five most consumed food products, while in Switzerland it occupies a leading position in terms of consumption [20]. This is due to the small number of producers in the field of organic poultry farming, mostly concentrated in Zhytomyr, Odesa and Khmelnytskyi regions.

Although organic production is in the trend of increasing agricultural land, Ukraine ranks 11<sup>th</sup> in Europe and 20<sup>th</sup> — among world countries — among the leaders of the organic movement in terms of the area of organic land [30]. On the other hand, in the Eastern European region, our country ranks first in terms of the area of certified organic arable land, which is primarily used in the cultivation of grain, leguminous and oil crops. More than 48% of Ukrainian certified land is under grain crops, which ranks 7<sup>th</sup> among organic grain-producing countries, 16% of land is occupied by oil crops — 5<sup>th</sup> place, and 4.5% by legumes — 7<sup>th</sup> place in the world [31]. Vegetables are grown on 2% of certified land — this is Ukraine’s 10<sup>th</sup> place in the world, fruits — on 0.6%, and grapes — on 0.1% of land [12]. In general, the area of Ukrainian certified land, which specializes in the production of various organic products, is more than 430 thousand hectares, which is 1% of all agricultural land, while in the countries of the European Union it is more than 6% [9].

According to the report of IFOAM and the Federation of the Organic Movement of Ukraine,

there is a positive trend in the growth of areas under organic production, while the number of organic market operators is increasing [7]. The vast majority of Ukrainian operators producing products for export and domestic consumption are certified according to organic standards equivalent to EU Regulations No. 834/2007 and No. 889/2008 [10, 22, 31, 33].

According to the Resolution «On the Approval of the National Economic Strategy for the Period Until 2030» approved by the Cabinet of Ministers of Ukraine in March 2020, it is planned to expand the area of land with organic status to 3% of the land, i.e. to 1.3 million hectares [9]. This corresponds to the key principles of the European Union laid down in the “Farm to Fork” Strategy, which foresees an increase by 2030 of the number of agricultural areas under organic production to 25% and reflected in the Ukrainian Agricultural Sector Project “Ukrainian Green Way from Farm to Fork: Step step by step”, which is aimed at the development of rural communities [1].

Official statistics of the Reform Support Office and data from Organic Standart LLC show that in Ukraine over the past 20 years, the number of certified organic farms has increased 17 times and currently totals more than 600 [19]. This was undoubtedly facilitated by the growth in the level of domestic consumption of organic products, mainly juices, oils, honey, jams, syrups, cereals, flour, teas, medicinal herbs, dairy and meat products [8, 32]. According to the Federation of the Organic Movement, the Ukrainian consumer market for organic products has grown 40 times over the past 10 years [30]. Emphasis on the consumption of safe organic products was observed in the years leading up to the pandemic, when the call for sustainable food emerged. During the war, there were significant changes in the agricultural sector of Ukraine in the direction of a decrease in organic production, because many organic farms were concentrated in the Kherson, Zhytomyr, and Kyiv regions.

In contrast to European colleagues, where organic production is mostly inherent to small private farms, in Odesa, Vinnytsia, Poltava, Zakarpattia, Ternopil and Lviv regions there are organic farms that own agricultural land with an area of several to thousands of hectares. They specialize not only in fruit and vegetable and berry products, but also in growing legumes, keeping and breeding farm animals and poultry. The largest area of land (16,000 ha) is owned by the Arnica company [7].

Given the high cost of organic products, greater consumer demand for them is usually

observed among the urban population, which is mainly concerned with the consumption of safe products and has a higher level of income. It should be noted that the price policy in the field of organic production is determined by the high cost of production and processing, which takes into account additional costs for environmental protection, cultivation of agricultural crops, improvement of animal husbandry conditions, measures for the development of rural areas [34]. According to forecasts of the Food and Agricultural Organization of the United Nations (FAO), the profitability of this sector, without setting high prices, will be low, because if organic producers refuse to use traditional means of plant protection and fertilizers in intensive agriculture, they will suffer losses of 30–40%, or even more crop yield due to damage by pests, due to the spread of diseases and in connection with excessive weeding of crops [10, 23]. If during the first five years of the transition to organic farming, the yield of crops decreases, then the cost of maintaining such a field increases by 20–30%, and the cultivation of certain types of plants — by 50%. For some cultures, the return of the invested funds can be expected within 10 years, however, the increase in the price of organic products up to 60% allows to somewhat level the losses [7].

Ukrainian agricultural producers claim that during the transition from an inorganic farming system to an organic one, a high level of crop yield reduction is also caused by a lack of Nitrogen, therefore care should be taken to feed plants, especially to provide organic fertilizers, in particular manure, which, given the real state of animal husbandry today, is problematic [34, 36]. The use of siderates, natural minerals, and compost can improve the situation. Crop contamination is eliminated by introducing soil-protective crop rotations, mulching, and growing cover crops [34]. Chemical means of plant protection should be replaced by biological methods of control, the use of traps, beneficial insects, birds, and safe substances, which at the same time increases the frequency of spraying, correspondingly increases the costs of using fuel, tillage, increases the amount of material and technical means and human resources involved [36]. In addition, taking into account the rate of growth of the population's needs for food products and the absence of unused lands in the field of agriculture, as well as the destruction of the arable fund of Ukrainian lands by the attacks of the aggressor, the prospect of a full transition to organic production is impossible.

A common opinion of consumers in favor of organic products is that producers under

the traditional system apply an excessive amount of pesticides to the fields, but this is not the case, because chemicals can not only harm plants, but also have an effect on the following crops in the crop rotation [34]. In fact, Ukrainian agricultural producers use two to three times less plant protection products compared to European ones, this is due not only to their cost, concern for the condition of plants, higher soil fertility — Ukraine is home to a tenth of the world's chernozems (this is about 45% of our territory), but and climatic conditions [29]. Winters that are colder than in some European countries help to reduce the number of pathogens, therefore the need for additional plant protection is eliminated, and therefore safer products are obtained [1, 34].

On the other hand, organic products protect people from pesticides, and farmers from the danger of poisoning during crop spraying [31]. Organic farming promotes the development of soil microflora by more than 30%.

The advantages of organic production also include:

- lack of dependence on mineral fertilizers and toxic chemicals;
- increase of jobs for the rural population;
- creation of local markets for the sale of safe products;
- better taste qualities of produced products;
- conservation of biological diversity;
- minimal impact on the soil;
- reducing the level of air, ground and surface water pollution;
- prohibition of veterinary drugs and food additives for feeding animals, which have a negative effect on health;
- more comfortable conditions for keeping farm animals [13, 35].

Public events significantly stimulate organic production. Thanks to the Federation of the Organic Movement of Ukraine with the support of FiBL, the First All-Ukrainian Fair of Organic Products was held in Lviv in 2009, since then this event has become traditional [36]. In 2020, the Specialized Exhibition-Fair of Organic Products and Technologies “ORGANIC-2020” and the XII All-Ukrainian Fair of Organic Products took place [19]. Exhibitors from more than 80 countries of the world, including 37 companies from Ukraine, presented their products and took part in Nuremberg in the main event of 2021 — the BIOFACH2021 training exhibition [7].

In 2020, the transition to the “online era” took place, a number of conferences and forums were held partly in this format, including the “Organic Ukraine 2020” Congress, the



“Organic: Knowledge, Experience, Results” conference, the VII International Conference “Organic Processing and trade 2020” [7]. In January 2020, the conference “Organic berry business: mistakes 2019 — prospects 2020” was held as part of the International Berry Forum “S-FRUIT TRANSFORMATION”, the world’s attention was drawn to the workshop “Ancillary products in organic agricultural production” and the report of the FAO Program [19].

At the independent international competition “Favorite Food&Drinks”, which was held in Ukraine in 2021, the nomination “Organic products” was introduced for the first time and the victory was won by the domestic certified product Liqberry [30]. In April 2021, at the initiative of the Federation of the Organic Movement of Ukraine and the Ministry of Economic Development, Trade and Agriculture, a round table was organized on the topic: “Supporting organic production in Ukraine: the mechanism of 2021 and new promising directions”, at which, in particular, the key directions of implementation were discussed. The project “German-Ukrainian cooperation in the field of organic agriculture”.

In 2020, Ukrainian exporters of organic products enlisted the support of the State institution “Export Promotion Office of Ukraine”, in the same year, with the assistance of FiBL-IFOAM, a number of informational materials and books were published, in particular, “The World of Organic Agriculture. Statistics and new trends 2020” [30]. The source that annually publishes information on accredited entities of organic production is the edition of FiBL — “Organic Business Directory of Ukraine”. The Ministry of Economy developed the Organic Map of Ukraine on the basis of operational monitoring data [19].

Since the spread of organic products is facilitated by wide promotion, in this context, on March 25, 2021, the European Parliament, the Council of Europe and the European Commission introduced the observance of September 23 “EU organic day”. European Commissioner for Agriculture Janusz Wojciechowski noted during this event that “Organic production is a sustainable type of agriculture, in which food products are produced taking into account the laws of nature, preservation of biodiversity and animal welfare” [9]. On April 4, 2018, the Law of Ukraine “On State Control of Compliance with the Legislation on Food Products, Fodder, Animal By-products, Animal Health and Welfare” entered into force, which provides for the regulation of the legal and organizational principles of state control, which is carried

out in order to verify compliance by market operators of the legislation on food products, feed, animal health and welfare, as well as on by-products of animal origin during the importation (forwarding) of such by-products to the customs territory of Ukraine.

## Conclusions

The development of the organic movement is a promising lever of Ukraine’s food security, accordingly, the work on the legal regulation of the activities of domestic producers of organic products does not stop, the legislation is being improved in the direction of introducing effective state support in this area at the regional and national levels. Today, the main problem of actively implementing the system and joining the Organic movement on the way to adapting to European standards is the conduct of hostilities and the aggressor’s mining of Ukrainian agricultural lands, the destruction of livestock farms and agricultural animals, and the killing of farmers during rocket attacks. Therefore, the Ukrainian organic movement needs the support of the world community in order to speed up plans to restore and expand the area of land with organic land status and renew organic production.

Of course, organic feed production, animal husbandry and crop production will continue to exist in parallel with non-organic production, but the principles and relationships of these systems will depend significantly on the availability of energy sources, the availability of plant protection products, fertilizers, soil fertility, care for the preservation of the natural environment, ensuring welfare population and its needs in healthy nutrition. Also, for the restoration of agricultural lands, demining and bioremediation with the use of bacterial and phytoremediation of soil and water resources should be applied, and for this, after the liberation of our state, a return to the peaceful management of the national economy is necessary. We believe in the victory and restoration of Ukraine with the help of allied states and people of good will.

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## ОСНОВНІ АСПЕКТИ ВИРОБНИЦТВА ОРГАНІЧНОЇ ПРОДУКЦІЇ В УКРАЇНІ

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Стаття присвячена висвітленню стану й перспектив розвитку в Україні органічного виробництва. Представлено основні вимоги до виготовлення, класифікації та маркування органічної продукції тваринного і рослинного походження, наголошується на чинних правових засадах, якими керуються за її сертифікації та обігу, відображено ключові положення щодо оцінювання й регулювання у цій сфері діяльності, показано етапи удосконалення вітчизняної законодавчої бази органічного виробництва на шляху адаптації до європейських стандартів.

*Мета.* Висвітлити стан та перспективи розвитку в Україні органічного виробництва й удосконалення законодавчої бази органічного виробництва на шляху адаптації до європейських стандартів.

*Матеріали та методи.* Методичний аналіз й абстрактно-логічний метод для узагальнення критеріїв оцінки становлення, розвитку та інтегрування вітчизняного органічного виробництва в структуру світового виробництва безпечної продукції тваринництва і рослинництва.

*Результати.* Детально описано розвиток органічного руху, який є перспективним важелем продовольчої безпеки України, і тому, відповідно, не припиняється робота з правового врегулювання діяльності вітчизняних виробників органічної продукції, вдосконалюється законодавство у напрямку запровадження на регіональному та національному рівнях ефективної державної підтримки цієї сфери. Звичайно, органічне виробництво кормів, тваринництва та рослинництво продовжуватимуть існувати паралельно з неорганічним виробництвом, але принципи та взаємозв'язки цих систем суттєво залежатимуть від наявності джерел енергії, наявності засобів захисту рослин, добрив, родючості ґрунту, догляду на збереження навколишнього природного середовища, забезпечення добробуту населення та його потреб у здоровому харчуванні. Також для відновлення агротехнічних угідь, очевидно, слід буде застосувати розмінування та біоремедіацію із застосуванням бактеріальної та фіторемедіації ґрунтів і водних ресурсів, а для цього після звільнення нашої держави необхідно повернення до мирного ведення народного господарства. Віримо у перемогу та відновлення України за допомогою союзних держав і людей доброї волі.

**Ключові слова:** органічна продукція; сертифікація; маркування; європейські стандарти; біоремедіація; правові засади регулювання органічного ринку.