ТЕОРІЯ ТА ПРАКТИКА ТОВАРОЗНАВСТВА ХАРЧОВИХ ПРОДУКТІВ

UDC 614.31:006.354:339.54
DOI https://doi.org/10.37734/2518-7171-2026-2-13

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FOOD SAFETY CONTROL AND QUALITY MANAGEMENT IN THE PROCESS OF UKRAINE'S EUROPEAN INTEGRATION

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Abstract. *The article considers the current problem of ensuring the rights of citizens to the safety and quality of food products in Ukraine, linking it with constitutional guarantees of human rights. According to Art. 3 of the Constitution of Ukraine, the affirmation of human rights and freedoms is the main duty of the state, and human rights are opportunities for existence and development, equal for all. The article determines that the protection of the rights to safe products is basic, as it combines socio-historical aspects with physiological needs for consumption. The quality of food products, according to DSTU ISO 9001:2009, depends on factors of production, distribution and consumption, including raw materials, technologies, storage and transportation. It is influenced by industry regulatory and legal support and compliance with standards at all stages. The state control system has shortcomings: duplication of functions of bodies, lack of a clear structure, slow implementation of a risk-oriented approach, which leads to almost 1.5 thousand cases of food poisoning annually. Information on control is often confidential, and only 8 documents with the keywords "product safety and quality" are registered in the VRU database. The main law is the Law of Ukraine "On Basic Principles and Requirements for the Safety and Quality of Food Products", which regulates relations between authorities, market operators and consumers, dividing them into three groups. The law provides 95 definitions of terms, of which 14 key ones relate to humans. The article analyzes conflicts: the innovative interpretation of drinking water as a food product contradicts the EU Council Directive 98/83/EC; the term "hygienic requirements" has different interpretations in the orders of the Ministry of Health; the lack of a complete list of safety indicators complicates arbitration studies. The danger of exceeding pesticide, antibiotic, and hormone residues is related to this. The Law on State Control No. 2042–VIII mentions HACCP, but liability for its failure is limited. Consumer rights are protected by domestic (DSTU ISO 9001:2009) and international legislation (Rome Declaration, EU Regulations No. 178/2002, No. 852/2004). Ukraine's support for these norms indicates its desire for European integration through the law-making, law-enforcement and control and supervisory activities of the state. Based on the study, harmonization with the EU promises higher health protection, reliable information, affordable products, but requires a revision of the terminology of Law No. 771/97-VR to comply with the IFS, BRC, GLOBALGAP, ISO 22000 standards.*

Keywords: *HACCP, Codex Alimentarius, quality control, safety, expertise, quality management, audit, standardization, certification, European integration.*

Formulation of the problem in general form. According to Article 3 of the Constitution of Ukraine, human rights and freedoms and their guarantees determine the content and direction of the state's activities. The affirmation and provision of human rights and freedoms is the main duty of the state. As noted in the Encyclopedic Handbook of the Future Lawyer, edited by S. F. Safulko, "human rights represent certain human capabilities necessary for its existence and development in specific historical conditions, which

are objectively determined by the level of development achieved by humanity and must be equal for all people" [1–4].

Protection of citizens' rights to safety and quality of products in Ukraine is the provision of one of the basic rights, since it is based on the combination of human rights as a socio-historical category with the right of a person to ensure the physiological needs of consuming quality food products as the very meaning of his personal existence. At the same time, as is known, the quality of food products depends, as per DSTU ISO 9001:2009, on "factors of the sphere of production and conditions of growing plant products, quality of raw materials, semi-finished products, technology of their processing, equipment; factors of the sphere of distribution – quality of storage, transportation, sale; factors of the sphere of consumption – quality of short-term storage, consumption and assimilation" [5, 6]. Therefore, as it is seen, the quality and safety of food products for the consumer are influenced by two main factors – the sectoral regulatory and legal support determining the quality and safety of food products and the unquestionable compliance with its provisions at any of the production technological stages [7, 8].

At the same time, at the end of 2011, S. Belinska, N. Orlova, Yu. Motuzka noted that "the main shortcomings of the domestic system of state control of food safety are due to a number of factors, including: duplication of functions of control bodies, lack of a clear organizational structure at the national level, slow implementation of a risk-based safety management system" [9]. And this despite the fact that almost 1.5 thousand cases of food poisoning are registered in Ukraine annually. That is why the issues of safety and quality of products have been and remain a relevant subject of scientific research, in particular, by A. V. Babyuk, V. V. Brulevych, O. V. Kovaleva, L. M. Pylypenko, O. S. Pronevich, V. Z. Yanchuk and other scientists [10–16]. However, research into individual norms of domestic legislation in this area is also relevant, which is the purpose of the article.

Analysis of recent research and publications. Analysis of foreign sources demonstrates a consensus on the need for full harmonization with EU principles, advantages for exports and competitiveness, but points to common challenges: resource constraints, institutional weaknesses and the need for digitalization, which remains relevant for Ukraine as of 2026. Escanciano C. and Santos-Vijande M. L. (2014) in their article [17] analyze the reasons and limitations of the implementation of ISO 22000 as a food safety management system in Spain, which has direct parallels with the European integration process of Ukraine. The authors emphasize that ISO 22000 integrates HACCP principles with preventive programs (PRP) and a management system, ensuring full control of the supply chain. They note the advantages for exports to EU markets, but criticize the lack of resources and knowledge in small enterprises, which is a relevant barrier for Ukraine in adapting to EU Regulations No. 852/2004 and No. 178/2002.

Arvanitoyannis I. S. and Kassaveti A. (2009) conduct a comparative analysis of HACCP and ISO 22000 in the context of food of animal origin. The authors argue that ISO 22000 is a broader system that meets the requirements of the Codex Alimentarius and the EU, and is recommended for EU candidate countries such as Ukraine. They emphasize the need to integrate communication, PRP and verification for effective auditing, but point to the lack of empirical data on post-Soviet countries, where implementation often remains formal [18].

Surak J. G. (2005) considers ISO 22000 as a global standard that solves the problem of integrating HACCP with quality management elements. The author emphasizes that the implementation of the system facilitates access to premium EU markets and increases competitiveness, which is key for Ukraine within the framework of the Association Agreement. The work demonstrates the advantages of preventive control, but criticizes the lack of attention to digital monitoring and traceability tools, which is relevant for the current stage of European integration [19].

Motarjemi Y. and Lelieveld H. (Eds.) (2014) in a practical guide to food safety management analyze the global challenges of implementing HACCP and ISO 22000, including candidate countries for EU accession. The authors emphasize the transition to a risk-based approach "from farm to fork", mandatory for Ukraine in accordance with the EU acquis. They propose training and verification algorithms, but note typical problems: weak institutional capacity, lack of resources and low safety culture, which is confirmed by the experience of Ukraine during the 2015–2022 reforms [20].

The World Bank (2009) in a report on the reform of food safety regulation in Ukraine offers recommendations for harmonization with European standards. The authors emphasize the need to move from the Soviet model to preventive control based on HACCP, which reduces risks and promotes exports. They record the potential for cost reduction by 15–25% due to early detection of risks, but criticize the insufficient risk-oriented state control and the lack of support for small businesses in the context of European integration [21].

Formation of article goals. The purpose of the article is a comprehensive analysis of the state and prospects of food safety control and quality management in Ukraine in the context of European integration processes, in particular the implementation of the Association Agreement with the European Union and preparation for negotiations on full membership in the EU.

The study is aimed at assessing the degree of harmonization of Ukrainian legislation with the EU acquis communautaire in the field of sanitary

and phytosanitary measures (SPS), identifying key achievements and challenges in the implementation of HACCP, ISO 22000 and compatible schemes (FSSC 22000, BRC, IFS), as well as determining strategic directions for improving state control, digitalization of traceability processes and increasing the competitiveness of domestic food enterprises in the European market.

The work also involves generalizing foreign experience (EU member states and candidates) to develop practical recommendations for accelerating reforms in the food industry of Ukraine, taking into account the impact of martial law and the need to strengthen food security.

Presentation of the main research material. According to the Resolution of the Cabinet of Ministers of Ukraine dated 02.09.2015 No. 667, the main entities ensuring food safety and consumer protection are the State Service of Ukraine for Food Safety and Consumer Protection (State Service of Ukraine for Food Safety and Consumer Protection) as the central executive body, the Cabinet of Ministers of Ukraine and the Ministry of Agrarian Policy and Food – which together implement "state policy in the field of veterinary medicine, safety and individual quality indicators of food products, quarantine and plant protection, identification and registration of animals, sanitary legislation, prevention and reduction of the use of tobacco products and their harmful effects on public health, metrological supervision, market supervision within the scope of their responsibility, seed and nursery production (in terms of certification of seeds and planting material), registration and accounting of machines in the agro-industrial complex, state supervision (control) in the agro-industrial complex, state supervision (control) in the areas of protection of rights to plant varieties, seed and nurseries, state control over compliance with legislation on consumer protection and advertising in this area, over the quality of grain and its processed products, state supervision (control) over compliance with biological and genetic safety measures for agricultural plants during the creation, research and practical use of genetically modified organisms in open systems at enterprises, institutions and organizations of the agro-industrial complex, regardless of their subordination and form of ownership, radiation control over the level of radioactive contamination of agricultural products and food products.

In the aforementioned Resolution of the Cabinet of Ministers of Ukraine, unfortunately, there was no place for the Ministry of Health of Ukraine, which includes the State Sanitary and Epidemiological Service of Ukraine, and whose website, as well as the page "dangerous factors (register)" of the ministry, do not work stably, and for other departments, etc. By the way, we did not find any significant orders from the Ministry of Agrarian Policy in 2017 that directly related to food safety issues – mostly only about approving the versions of the charters of a number of food enterprises and the competitive selection of their directors.

The question of how citizens' right to safety and quality of products is actually ensured in Ukraine remains open, since certain information in this area, at least for a wide range of consumers, continues to remain confidential. It should be noted that as of today, only 8 documents have been registered in the database of the Verkhovna Rada of Ukraine "Legislation of Ukraine" with the keywords "safety and quality of products". At the same time, the Law of Ukraine "On Basic Principles and Requirements for the Safety and Quality of Food Products" dated 23.12.1997 No. 771/97-VR provides basic definitions that are directly relevant to every person in Ukraine.

In addition, the subjects of ensuring food safety and consumer protection in Ukraine also include: the Ministry of Economic Development and Trade of Ukraine, the Ministry of Ecology and Natural Resources of Ukraine; as well as committees and services – the already mentioned State Sanitary and Epidemiological Service, the State Ecological Inspectorate, etc.

Today, the consumer's rights to a safe food product are protected in a fairly wide range by both domestic and international foreign legislation ratified by Ukraine. These include, in particular, the Standard DSTU ISO 9001:2009 "Quality Management Systems. Requirements"; the Rome Declaration on World Food Security and the World Food Summit Action Plan; Regulation (EC) of the European Parliament and of the Council "On establishing the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety" dated 28.01.2002 No. 178/2002; Regulation No. 852/2004/EC dated 29.04.2004 "On the hygiene of foodstuffs", etc. Thus, Ukraine's support for the protection of citizens' rights to the safety and quality of products of international documents, in particular, the Regulations of the EU countries, is evidence of its desire for early European integration and is fully ensured, in addition to law enforcement, by all other legal forms of exercising state functions – law-making, law-enforcement, institutional, control and supervision [22–25].

Due to the specificity and special significance of the subject of legislative regulation, the aforementioned Law of Ukraine "On Basic Principles and Requirements for the Safety and Quality of Food Products" dated 23.12.1997 No. 771/97-BP [5] at one time provided an extremely large number of meanings of the terms used therein – 95, which required unambiguous interpretation. At the same time, the Law, directly regulating the relations between executive authorities, food market operators and food

consumers, actually divides them into three groups of actors that interact with each other or influence each other. And, as can be seen from this, among them, the group of actors most interested in the safety and quality of food products is exclusively food consumers. And executive authorities and food market operators are de jure responsible, but still, frankly speaking, secondary in terms of interest in the undoubted quality and safety of food products, participants in these relations. Because of this, low-quality children's [26] and adult [27] food products appear on the food market, etc.

The following key terms of the aforementioned Law of Ukraine should be considered basic for humans regarding food safety: "safe food product – a food product that does not have a harmful effect on human health and is suitable for consumption"; "drinking water – a food product suitable for human consumption"; "hygienic requirements – measures and conditions necessary to manage hazardous factors and ensure the suitability of food products for human consumption, taking into account their use in accordance with their intended purpose", "maximum residue limit (maximum permissible residue level) – the maximum permissible content in food products of a certain substance that has toxicological significance and is dangerous for the human body in case of exceeding their maximum permissible content in food products consumed by humans"; "hazardous factor in a food product – any chemical, physical, biological factor of a food product or its condition that may cause a harmful effect on human health"; "when establishing the harmfulness of a food product to health, the following shall be taken into account: the possible short-term or long-term impact of the food product on the health of the person consuming it and on future generations"; "objects of sanitary measures – food products, animals intended for human consumption, as well as auxiliary materials for processing and materials in contact with food products"; "safety parameters – scientifically substantiated and approved by the central executive body, non-compliance with which in food products may lead to a harmful effect on human health"; "fitness mark – a mark used in accordance with the provisions of this Law to confirm the suitability of an unprocessed food product of animal origin for human consumption"; "plant products – mushrooms, berries, vegetables, fruits and other food products of plant origin intended for human consumption"; "risk – the possibility of a harmful effect on human health and the degree of this effect, resulting from a hazardous factor(s) in a food product"; "sanitary or phytosanitary measure – any measure taken with the aim of:… protecting human life or health from risks arising from diseases transmitted by animals, plants or products produced from them, or from the penetration, establishment or spread of harmful organisms"; "food product – a substance or product (unprocessed, partially processed or processed) intended for human consumption"; "food product of animal origin – milk, meat, fish, molluscs and crustaceans, including fresh, chilled or frozen, eggs, honey, their derivatives and other products made from parts of animals, their individual organs and/or tissues, intended for human consumption" – a total of 14 definitions [28, 29].

In other, 81 definitions, the category "person" is not used, although the category "consumer" is used synonymously 13 times, in relation to which now, as a formal "final consumer", "a consumer who uses a food product exclusively for his own consumption" appears.

G. Kuznetsov cites such advantages of harmonizing domestic food legislation with European legislation as "a higher level of health protection; increasing the level of reliability of information about food products; the appearance on the market of a larger number of affordable food products that will support the body in a healthy state; diversification of food products and their "personification", etc.

It is also necessary to take into account certain legislative, not yet properly resolved, conflicts regarding some of the above definitions, according to which, according to experts, the same legislatively defined "innovative" approach to drinking water, against the background of the desire to harmonize the legislative framework of Ukraine with the European one, comes into conflict with the definition set out in Article 2 of Council Directive 98/83/EC… of November 3, 1998, on the quality of water intended for human consumption", in which "drinking water in the definition of the EU Council Directive is not considered as a food product" [30]. And very important in this regard should be considered the remark of O. S. Pronevych that "in domestic legal science there is no tradition of studying the problems of implementing European standards for ensuring the quality of water suitable for human consumption" [31–33].

As for another term "hygienic requirements", its different interpretations, different from the one also legally defined for other subjects of regulation, but designated by the same term, are presented in the current orders of the Ministry of Health of Ukraine "On Approval of State Sanitary Norms and Rules "Hygienic Requirements for Printed Products for Children" dated January 18, 2007 No. 13 as "a set of requirements aimed at ensuring the convenience of reading the text in order to prevent the negative impact of the reading process on human health"; and "On Approval of State Sanitary Norms and Rules "Disinfection, Pre-sterilization Cleaning and Sterilization of Medical Devices in Healthcare Institutions" dated August 11, 2014 No. 552 as "a set of measures aimed at preventing the negative impact of physical, chemical, microclimatic and other factors on human health", which is absolutely unacceptable.

Although, at the same time, another order of the Ministry of Health of Ukraine "On Approval of Hygienic Requirements for Poultry Meat and Certain Indicators of Its Quality" dated August 6, 2013 No. 694 correctly uses the term corresponding to the legislation.

As I. Tavlui notes, "regarding the requirements of food chain safety, key concepts and tools are common to all regulatory documents (food standards IFS, BRC Food, BRC loP, Dutch HACCP, GLOBALGAP, ISO 9001, ISO 14001, ISO 22000, ISO 22002-1(2,3) and FSSC. – Author) such as: sanitary and hygienic conditions – measures and conditions that are necessary to control hazardous factors and ensure the suitability of food products for human consumption, taking into account its intended use" [34]. Then the question arises why the Law of Ukraine "On Basic Principles and Requirements for the Safety and Quality of Food Products" dated 23.12.1997 No. 771/97-VR, although in some cases, ignores approved international standards for the safety and quality of food products.

Regarding the term "maximum residue limit (maximum permissible residue level)", another key point is the quite reasonable remark of the League of Food Producers to the draft Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine on Food Safety", posted on the website of the State Veterinary and Phytosanitary Service of Ukraine, regarding the completeness of the content of paragraph 2, part 2, article 6 regarding the powers of the central executive body that forms and ensures the implementation of state policy in the field of health protection, according to which "safety indicators of food products and other objects of sanitary measures, including maximum permissible levels of hazardous factors and maximum residue limits), hygienic requirements for objects of sanitary measures" should be approved, since without such a list it is impossible to organize arbitration studies. With this, in theory and in practice, we associate the danger of exceeding the maximum residue limits in food raw materials and food products by residual levels, primarily of pesticides, antibiotics and hormonal drugs.

In turn, the concept of "hazardous factor in a food product" through its identification is used in clause 27, clause 1, article 1 of the Law of Ukraine "On State Control over Compliance with Legislation on Food Products, Feed, Animal By-Products, Animal Health and Welfare" dated 18.05.2017 No. 2042-VIII [14] in the definition of the term "risk assessment", as well as in clause 35, clause 1 of the same article 6 in the definition of the term "system of analysis of hazardous factors and control at critical points (Hazard Analysis and Critical Control Points – HACCP)", etc. And only the only clause 4 of clause 1 of article 65 of this Law regulates the liability of market operators for such an offense as "failure to fulfill the obligation specified by law to implement permanent procedures based on the principles of the Hazard Analysis and Critical Control Point (HACCP) system at the facilities" [35].

From this, it can be seen that similar comments can be made to other key terms of the specified Law of Ukraine, which are basic for a person regarding food safety. This requires at least a revision of the terminology of the Law of Ukraine "On Basic Principles and Requirements for the Safety and Quality of Food Products" in order to bring it into line with current international standards. Although it was previously noted that "the law aims to harmonize Ukrainian legislation with EU legislation in the field of food safety and quality, ensuring a high level of protection of human health and consumer interests, as well as creating transparent conditions for conducting economic activities, increasing the competitiveness of domestic food products and reducing their prices" and that "the law provides for clarification of terminology, types of offenses and adequacy of punishment, creation of a single regulatory body in the field of food safety, abolition of permitting documents and procedures that are absent in the EU, introduction of European principles of GMO regulation, in particular, in terms of registration of GMO sources, and not products produced from them" [36].

In general, today "the European food safety system is recognized as one of the best in the world, and the European consumer is the most protected. At the same time, EU food legislation is an example of a thoughtful approach that takes into account the interests of everyone involved in the food market" [37], one should hope for an unconditional future improvement in the situation with food safety and quality in Ukraine.

Conclusions on the above problems and prospects for further research in the given direction. Analysis of the regulatory framework and practice of ensuring food safety and quality in Ukraine indicates the presence of significant gaps and inconsistencies that significantly limit the implementation of the constitutional right of citizens to safe and high-quality food. Despite the basic Law of Ukraine "On Basic Principles and Requirements for Food Safety and Quality" dated 23.12.1997 No. 771/97-BP, which contains 95 definitions of terms and establishes key principles, the state control system remains fragmented: there is duplication of functions of bodies, lack of a clear organizational structure at the national level, insufficient implementation of a risk-based approach and slow integration of HACCP principles at all stages of the food chain. Terminological conflicts and inconsistency of definitions with international standards are particularly critical. The legislation does not sufficiently take into account approved international standards (ISO 22000, IFS, BRC, GLOBALGAP), which slows down harmonization with the EU acquis. Information on control results is not sufficiently accessible to a wide range of consumers, and the number of documents registered in the VRU database

under the keywords “safety and quality of products” is insufficient. The European integration process opens up significant prospects: harmonization with EU regulations and other norms can ensure a higher level of health protection, increase the reliability of information, expand the range and reduce prices for safe products. Further improvement of the food safety and quality assurance system in Ukraine is possible only under the condition of systematic harmonization of legislation with European legislation, strengthening the institutional capacity of regulatory authorities, increasing the responsibility of market operators and real involvement of consumers as the main beneficiaries of these changes. The European food safety system, recognized as one of the best in the world, can become a reference point for Ukraine, provided that there is political will and consistent implementation.

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Анотація. *У статті розглядається актуальна проблема забезпечення прав громадян на безпечність та якість харчових продуктів в Україні, пов'язуючи її з конституційними гарантіями прав людини. Відповідно до ст. 3 Конституції України, утвердження прав і свобод людини є головним обов'язком держави, а права людини – це можливості для існування та розвитку, рівними для всіх. У статті визначено, що захист прав на безпечні продукти є базовим, оскільки поєднує соціально-історичні аспекти з фізіологічними потребами споживання. Якість харчових продуктів, за ДСТУ ISO 9001:2009, залежить від факторів виробництва, розподілу та споживання, включаючи сировину, технології, зберігання та транспортування. На неї впливають галузеве нормативно-правове забезпечення та дотримання норм на всіх етапах. Система державного контролю має недоліки: дублювання функцій органів, відсутність чіткої структури, повільне впровадження ризик-орієнтованого підходу, що призводить до майже 1,5 тис. випадків харчових отруєнь щорічно. Інформація про контроль часто конфіденційна, а в базі ВРУ зареєстровано лише 8 документів за ключовими словами «безпечність та якість продуктів». Основним законом є Закон України «Про основні принципи та вимоги до безпечності та якості харчових продуктів», який регулює відносини між органами влади, операторами ринку та споживачами, поділяючи їх на три групи. Закон надає 95 визначень термінів, з яких 14 ключових стосуються людини. У статті проаналізовано колізії: новаторське трактування питної води як харчового продукту суперечить Директиві Ради ЄС 98/83/ЄС; термін «гігієнічні вимоги» має різночитання в наказах МОЗ; відсутність повного переліку показників безпечності ускладнює арбітражні дослідження. Небезпека перевищення залишків пестицидів, антибіотиків, гормонів пов'язана з цим. Закон про державний контроль №2042–VIII згадує HACCP, але відповідальність за його невиконання обмежена. Права споживачів захищені вітчизняним (ДСТУ ISO 9001:2009) та міжнародним законодавством (Римська декларація, Регламенти ЄС №178/2002, №852/2004). Підтримка Україною цих норм свідчить про прагнення до євроінтеграції через правотворчу, правозастосовну та контрольно-наглядову діяльність держави. Виходячи з дослідження, гармонізація з ЄС обіцяє вищий захист здоров'я, достовірну інформацію, доступні продукти, але потребує перегляду термінології Закону №771/97-ВР для відповідності стандартам IFS, BRC, GLOBALGAP, ISO 22000.*

Ключові слова: *HACCP, Codex Alimentarius, контроль якості, безпечність, експертиза, управління якістю, аудит, стандартизація, сертифікація, Євроінтеграція.*

Дата першого надходження статті до видання: 29.01.2026
Дата прийняття статті до друку після рецензування: 10.07.2026
Дата публікації (оприлюднення) статті: 13.11.2026