



Economics and Business Management

15(4), 9-20

Journal homepage: <https://economicscience.com.ua/en>

Received: 21.06.2024 Revised: 01.10.2024 Accepted: 27.11.2024

UDC 631.1:658.56

DOI: 10.31548/economics/4.2024.09

Olena Korohod*

Postgraduate Student

National University of Life and Environmental Sciences of Ukraine

03041, 15 Heroiv Oborony Str., Kyiv, Ukraine

<https://orcid.org/0009-0004-5604-320X>

Mykola Bykov

Adviser on Agronomy, Biological Protection of Plants,

Organic Fertilizers and Agronomic Technologies

Public Union "Green Agro Solutions"

08539, 110A Shevchenko Str., Tarasivka, Kyiv region, Ukraine

<https://orcid.org/0009-0003-9608-3399>

Internal control system in organic production: Structure and functions

Abstract. This study was necessitated by the growing popularity of organic production in the world and in Ukraine, which requires ensuring strict quality and safety standards for products. The globalisation of markets, increased competition, and growing consumer demands require organic enterprises to develop and implement an effective internal control system (ICS). The purpose of this study was to investigate the structure of the internal control system at organic production enterprises, to identify the key functions of the internal control system and their role in ensuring product quality and compliance with established standards. General scientific and special research methods were employed, including the abstract and logical method, comparative analysis method, expert evaluation method, modelling and simulation method, and SWOT analysis. It was found that at agricultural enterprises that produce organic products, internal control underpins successful certification and entails a set of measures aimed at monitoring and assessing compliance with certification standards. The study analysed the key aspects of internal control, specifically, its principles, role in ensuring product quality, observance of organic production standards, and compliance with legislation. The key components of the internal control system that ensure the effective functioning of an organic production enterprise were identified as follows: manual, rules, ICS standard, personnel and functions, risk management systems, traceability of the production and supply chain and their interconnection. The study highlighted that the internal control system should be an extended and integrated component of the product quality management system, and not just a tool for compliance with standards. It was substantiated that the organisation of the internal control system requires constant attention and resources from the management and staff of the enterprise. It was proved that the introduction of an effective internal control system can positively

Suggested Citation:

Korohod, O., & Bykov, M. (2024). Internal control system in organic production: Structure and functions. *Economics and Business Management*, 15(4), 9-20. doi: 10.31548/economics/4.2024.09.

*Corresponding author



Copyright © The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

affect the increase in consumer confidence in organic products, their competitiveness in the market and business stability. The practical value of the study lies in the fact that its findings can be used to manage organic production processes to ensure high quality products and meet consumer needs

Keywords: agriculture; organic products; consumers; ICS manual; ICS rules; risk management

INTRODUCTION

Global agriculture is steadily moving towards a new paradigm based on increased productivity through the transition to ecosystem-based development, one of the areas of which is the sustainable development of organic agriculture worldwide. There is a long-term trend towards its growth, as the area of organic land and the number of organic producers are increasing. Thus, the study was aimed at systematising theoretical and methodological approaches to the development and functioning of the internal control system in organic production.

The study of the problems of organic agricultural production in Ukraine has been reflected in the studies of many Ukrainian researchers. E. Mylovanov (2018) assessed the level of organic production in the context of environmentally sustainable development of rural areas of Ukraine. Using an integrated approach to the management of organic crop and livestock production, V.I. Artysh & N.V. Artysh (2022) considered the possibilities of increasing the competitiveness of crop production through the introduction of modern farming systems. A.I. Livinsky (2020) traced the problems of state regulation, certification of production, and sales of organic products in Ukraine. G. Sharyi *et al.* (2021) developed a structural and logical model of the management system at an organic farming enterprise, which included analysis and assessment of external and internal environmental factors. O.Yu. Havryk (2023) assessed the organisational and economic foundations of the functioning of the internal control system at agricultural enterprises.

According to A. Burkovska (2022), organic production is characterised by specific requirements for farming, which include minimising the use of chemicals, careful use of natural resources, and strict compliance with environmental regulations. Specifically, organic farming contributes to the conservation of biodiversity, reduction of greenhouse gas emissions and

carbon sequestration, energy efficiency, availability of clean water, nutrient cycling, food security, groundwater recharge, and landscape improvement. In this regard, T.O. Chaika *et al.* (2021) emphasised the need for producers to treat organic products and consumers who choose organic products in good faith.

A feature of Ukrainian organic exports is the dominance of agricultural raw materials. Most large organic producers and brands have been certified according to the standards of importing countries. Ukraine has a great potential for the development of the internal market for organic products: LLC "Organic Garden" (Lviv) – cultivation of organic blueberries under the brand "Stynava organic garden" (Stynava organic garden, n.d.), PJSC "EtnoProdukt" (Kyiv) – production of dairy products and meat (EATORGANIC, n.d.), LLC "Organic Milk" (Zhytomyr region) – dairy products (Organic Milk, n.d.). In addition, Khimex LTD (Kyiv region) produces cereals, groats, and flakes (Proorganica, n.d.) and PE GalexAgro (Zhytomyr region) produces cereals and honey (GalexAgro, n.d.). At the same time, small and medium-sized producers played a key role in the internal market of organic products: ECO BERRY farm (Ivano-Frankivsk region) and Darlisad LLC (Volyn region) – berries, Natsi LLC (Zakarpattia region) and Ukr Volnat LLC (Khmelnitskyi region) – walnuts, etc. (Ukrainian organic producers..., 2024).

T. Haiduchok & T. Ivashko (2024) concluded that to effectively manage resources and production processes, and to maintain the productivity of the industry, agricultural production requires constant internal monitoring, especially in the face of a deteriorating situation in the country. Despite a considerable number of publications, the issue under study is still relevant. The purpose of this study was to examine the internal control system in organic production, its structure, and functions. The primary tasks included the investigation of the system

structure and the identification of key ICS functions and their role in ensuring product quality and compliance with standards. In addition, the study analysed the relationship between various components of internal control to achieve efficient operation of the enterprise, highlighting the significance of internal control in the context of organic production and its impact on product quality and compliance with standards.

MATERIALS AND METHODS

To fulfil the purpose of the study, the following general scientific and special research methods were employed: analysis of literature and the regulatory framework - for an in-depth study of current standards and requirements for internal control in organic production; system analysis – to consider the structure of the internal control system, its components and functions. The abstract and logical method was applied to consider the basic principles of organic production (refusal to use synthetic chemicals, preservation of natural resources and biodiversity, ensuring the high quality of products and their safety for consumers, etc.), to understand their role in achieving environmental and social goals, and to identify common patterns inherent in all organic production. Comparative analysis was used to identify the strengths and weaknesses of internal control in organic production, identify opportunities for improvement, while expert opinions method was used to understand the views of experts and recommendations that can be used to develop more effective internal control systems. Modelling and simulation were used to determine the most effective structures and functions of internal control systems that can be implemented in practice, while SWOT analysis was applied to improve the internal control system by identifying its weaknesses and strengths.

The methodological framework of this study was based on legislative and regulatory acts (Law of Ukraine No. 2496-VIII, 2018; DSTU 7877:2015, 2015), official materials of the Cabinet of Ministers of Ukraine (Resolution of the Cabinet of Ministers of Ukraine No. 970, 2019). In addition, the study reviewed the international standards and regulations that Ukraine implements (Commission Regulation (EC) No. 889/2008, 2008) and the standards of the

International Federation of Organic Agricultural Movements IFOAM (IFOAM Standard, n.d.), which define global requirements for organic production, including the ICS, basic documentation of the group (land maps/master plans, list of all group members, description of the farm/field or production, contract signed by group members, analysis of efficiency/profitability); scientific and analytical articles of Ukrainian and foreign scientists, Internet resources. The study was based on a systematic approach to internal control in organic production as a complex phenomenon that plays a key role in ensuring that products conform to organic standards, as the internal control system covers not only control over production processes, but also acts as a strategic tool for managing product quality and safety, combining various control, monitoring, risk assessment, and reporting mechanisms.

RESULTS AND DISCUSSION

It was found that from the standpoint of state regulation of certification of production and sale of organic products, the necessary components of an effective system of state control include a clear legislative and regulatory framework for oversight (control). Clearly defined and delineated responsibilities of regulatory authorities, as well as concentration of supervision over products which, due to their inherent properties, pose an increased risk, as well as the availability of effective, fair, and incentive sanctions, effective information support, and competence of state inspectors.

For agricultural enterprises producing organic products, internal control underlies successful certification. It entails a set of measures aimed at monitoring and evaluating compliance with certification standards. It was found that the theoretical foundation of internal control is its basic principles and concepts. The concepts determine the development vector of the internal control theory, since they are the basis for setting goals. When developing the concept, the requirements for control are considered, and its functions help to correctly define the tasks and develop a reasonable programme for conducting an internal audit.

It was found that the internal control system is based on the following basic principles:

all farmers must have contractual obligations to grow organic crops, because the ICS organises training for farmers and conducts internal audits according to approved procedures. These inspections require the preparation of supplementary documentation, including contracts, descriptions of production units, inspection reports, harvest reports, and lists of farmers. In other words, the entire organic production process is subject to careful control and documentation. The findings of the study confirm the opinion of O. Bodnar (2021) that internal control records compliance with regulations on the efficiency and targeted use of funds to improve product quality, on the one hand, and on the other hand, ensures the relationship between the

object and subject of agricultural product quality control to assess the effectiveness of management decisions.

Building an internal control system involves determining its structure, the procedure for organising internal audits, and the persons responsible for developing internal control documents and making decisions. It was found that the internal control system has requirements for the availability of qualified personnel, an internal audit protocol, the procedure for admission to and exclusion from the group, a description of risk assessment procedures, etc. When switching to organic production, farmers sign an agreement confirming their obligations to follow the internal rules of organic production (Table 1).

Table 1. Sample of internal production rules

Area	Obligations
Training and meetings	Attendance of training events on organic production and internal control systems. Attendance of at least 3-5 meetings.
Documentation	Completion of all necessary documents (production log, receipts for the purchase of materials, etc.).
Employees performing work for hire	Provision of fair treatment and remuneration of employees, prevention of child labour exploitation.
Animals	Humane treatment of animals, avoidance of antibiotics and growth hormones, and prevention of manure contamination of water sources.
Diversity of ecosystems	Practise of mixing crops, protection of natural habitats where animals live.
Waste management	No environmentally sensitive materials (e.g., plastic products or batteries) should be disposed of in the fields.
Organic farming	No use of GMOs and synthetic chemicals for organic crops.
Organic soil insulation	Establishment of a buffer zone (requiring distance, hedges, etc.) to separate organic soil from pesticide-affected land. Prevention of irrigation of organic land with water from fields where pesticides or chemical fertilisers were applied.
Conservation of soil and water resources	Implementation of measures aimed at preventing soil erosion, improvement of infiltration, and preservation of soil moisture (including terracing, mulching, construction of dams, cultivation of cover crops, and contour planting).
Annual rotation of crops on the same field	Balanced use of the soil through crop rotation.
Seeds and planting material	Exclusive use of organic seeds and planting material. If unavailable, untreated seeds and planting material can be used.

Source: developed by the authors of this study based on the Legislative review of group certification of small and medium-sized organic farmers in Central Asia (2021)

It was found that the internal control system will be effective only if it contains the following components: manual, ICS standard, risk management system, functional responsibilities of personnel, traceability of the supply chain and production. The ICS manual consists of a description of the group and its land, products, climate, etc.; ICS rules and policies; staff structure and roles; description of procurement,

processing, and export processes; internal audit procedures and sanctioning policies; and a risk management system and traceability of the production chain. It was confirmed that the basis of the ICS includes such rules and procedures as internal social rules, procedures for attracting new members, sanctions policy, expulsion, and membership. The internal rules must be consistent with national legislation or

the Regulation of the European Parliament and of the Council of the EU on organic production and labelling of organic products (Regulation of the European Parliament and of the Council No. 2018/848, 2018) and approved by the general meeting with the consent of all group members after a risk assessment.

It was found that the group's management controls compliance with the requirements by the production units of each member through the policy of sanctions, expulsion, and entry into the group. The entry and expulsion policy is implemented based on internal rules and approved by the members of the organic operator group.

In case of major inconsistencies, such as the use of prohibited chemicals, the list of a new group of operators is updated. It is noted that sanctions are imposed based on the conclusion of an internal audit and enter into force by order of the group's ICS management committee or the head of the ICS. Non-compliant group members are subject to sanctions pursuant to the sanctions policy, including the possibility of deduction or expulsion from the group. Figure 1 presents the recommended structure of the internal control system. Table 2 provides examples of roles and responsibilities allocated to participants in the internal control system.

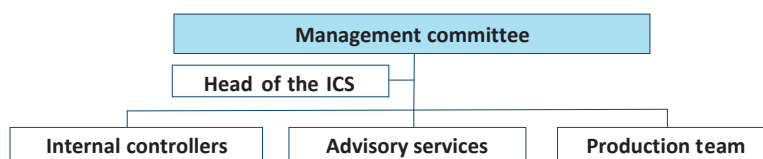


Figure 1. ICS organisation structure

Source: developed by the authors of this study based on the findings of the Legislative review of group certification of small and medium-sized organic farmers in Central Asia (2021)

Table 2. Distribution of functions and responsibilities between participants of the internal control system

ICS participants	Functions and responsibilities
Advisory service	● approval of the list of non-compliances and sanctions applied; ● approval of the organic producer status based on the inspection reports; ● decision-making on exclusion of producers from the group due to their non-compliance with internal standards; ● consideration of applications from organic producers regarding decisions made by the head of the internal control service or internal controllers.
Head of the ICS	● development, control, and revision of ICS procedures, forms, and other issues; ● training of specialists to spread knowledge about the ICS; ● control over internal audits (including re-inspection of individual farms); ● decision-making on sanctions for minor non-compliance.
Internal controllers	● maintaining a register of producers (characteristics of the farm, field layout, size, etc.). ● control of farmers' record keeping and necessary documentation; ● collecting data and summarising information for further submission to the head of the internal control system; ● inspection of each farm (visiting the organic producer, familiarisation with record keeping, yield assessment); ● examination of depositories; ● control of marketing of organic products.

Source: developed by the authors of this study based on the Legislative review of group certification of small and medium-sized organic farmers in Central Asia (2021)

A detailed risk assessment is mandatory prior to any internal audit. The ICS should develop a way to avoid or minimise the potential impact of the identified risks. Without full

traceability of the value chain, the ICS cannot operate properly. Therefore, crop assessment is the first step in controlling the flow of produce. Controlling the flow of products starts at

the harvesting sites. At each level, all records of product inputs and outputs should be kept. It was argued that the internal control system performs the functions of document management, registration, and training of farmers, develop-

ment of reporting forms, direct verification, and evaluation of farmer compliance. Table 3 presents a list of the key procedures, identifying the persons responsible for each of them, as well as the reporting and documents to be submitted.

Table 3. Recommended procedures, responsible persons, reporting and documents

Procedures	Persons responsible	Reporting and documents
Signature of the agreement	Head of the ICS	Agreements with farmers and agreements on compliance with the group's internal rules.
Training farmers in organic methods	Head of the ICS	Pruning history logs, field maps, training plans, and training databases.
Technical advice and farm monitoring	Head of the ICS	Farmer registration form with mandatory data.
Farm inspection	Internal controllers	Inspection reports.
Database keeping	Head of the ICS	Farm database with product characteristics.
Approval of solutions for group farms	Advisory service	Inspection reports, approved list of organic producers.
Internal audits	Head of the ICS / Advisory service	Finalised audit reports and registration of all inspected farms.

Source: developed by the authors of this study based on the Legislative review of group certification of small and medium-sized organic farmers in Central Asia (2021)

An internal control system is crucial for farmers to follow organic standards. However, even the most sophisticated management system cannot provide complete control (Karabassov *et al.*, 2022). It was found that group members should be aware of their obligations, since if one

of the farmers violates organic standards, there is a risk of losing certification for all group members. However, in any group there are farmers who violate organic standards. Table 4 shows examples of sanctions depending on the level of violations.

Table 4. Examples of sanctions depending on the severity of the violation

Violation level	Sanctions	Decision level
Complex (A)	A1. If a farmer reports a violation of the established rules and standards, they are excluded from the group for 1 year. A2. If the internal controller finds that the farmer violated the established rules and standards, they are excluded from the group for a period of 2 years. A3. If an organic producer was found to use prohibited chemicals, the land plot is transferred for 2 years for conversion.	Advisory service
Medium (B)	B1. If the organic producer can remedy the violation in the reporting year, a notice is sent to the producer with a requirement to take the necessary measures, the implementation of which is checked by internal controllers. B2. If the organic producer can remedy the violation only in the following year, the producer is also notified and requested to take the necessary measures, and the implementation of the measures is monitored by an additional inspection by internal controllers.	Head of the ICS
Light (C)	C. The organic producer is notified and must take the necessary measures to correct the violation. The implementation of the measures is checked by internal controllers during the next official inspection. If the farmer commits a second violation, they are subject to sanction B1.	Internal controller

Source: developed by the authors of this study based on the Legislative review of group certification of small and medium-sized organic farmers in Central Asia (2021)

Thus, it was found that if a farmer did not conceal deliberate violations, they should have the option to leave the group, and if the violation

was detected by an internal controller, the farmer would be subject to clearly defined sanctions, depending on the severity of the violation (Table 5).

Table 5. Examples of sanctions selected depending on the severity of the violation

Type	Violation	Severity level	Notes
Access	Failure to provide an internal or external inspector with access to the facility.	A	If the manufacturer made a deliberate refusal, the A2 sanction will be applied. If not, an additional internal inspection will be ordered.
Fraud	More goods are sold than are actually produced on certified land plots.	A	A2 sanction
Weight gain	Weight gain of the product when sold (e.g., frozen products are sold with water).	A	A2 sanction
Elimination of inconsistencies	Failure to take measures to eliminate violations identified during the internal audit.	A/B	In case of a deliberate repetition of the violation, the sanctions should be increased.
Participation in meetings, training events, and gatherings	Failure to attend meetings, training events and gatherings without reasonable excuse.	C	C1 sanction
Documentation	Documents are stored improperly.	B/C	C1 sanction
Organic production	Insufficient measures were taken to separate organic and conventional production.	B	B1 sanction
Parallel production	Mixing of organic and conventional products.	A	A2 sanction
Biodiversity	Biodiversity is not sufficiently considered.	C	C1 sanction

Source: developed by the authors of this study based on the Legislative review of group certification of small and medium-sized organic farmers in Central Asia (2021)

Among the risks of organic production, the most common is the supply of non-organic products by group members alongside organic products, which are much more expensive. To avoid this risk, it is advisable to estimate the potential yield of crops for each farmer based on field area data and conduct a comparative analysis using the figures of previous years and analogous farms.

Once the key components of the internal control system are identified, training should be organised for staff with the involvement of experienced consultants. However, it was found that it is insufficient to set up an internal control function, hire staff and train them. It is

necessary to ensure that they perform their duties in good faith. To this end, the study proposed to introduce a system of cross-checks. Thus, it was found that farmers must follow the standards all year round, and therefore internal control should be carried out throughout the year. It was noted that to improve the ICS after the annual external audit, it is necessary to consider the comments of the auditors and make relevant adjustments to the internal control service instructions. To evaluate the strengths and weaknesses of this system, SWOT analysis tools were employed and the advantages and disadvantages of the internal control system at organic production enterprises were presented (Table 6).

Table 6. Advantages and disadvantages
of the internal control system at organic production enterprises

Advantages	Disadvantages
1. Compliance ensures that the products are truly organic. 2. Continuous monitoring of production processes allows identifying potential risks and deficiencies that may affect product quality. 3. Internal control ensures transparency of production processes, which is important for certification bodies and consumers. 4. Implementation and effective functioning of the internal control system enhances the company's reputation in the market, as it demonstrates a responsible attitude towards organic production standards and helps to attract new customers and partners. 5. The internal control system allows detecting violations before they lead to severe consequences, such as product recall or loss of certification.	1. Implementation of an internal control system requires major initial financial expenditures, regular staff training, technology upgrades, and audits. 2. The internal control system requires additional resources, such as qualified personnel, technological support, and specialised software for data collection and analysis. 3. The internal control system can lead to excessive bureaucratisation of processes, as it involves a large amount of documentation, reporting, and audits, decelerating the process and increasing the workload of staff. 4. Since internal control is performed by employees of the enterprise, sometimes a conflict of interest may arise, which can lead to a decrease in the objectivity of assessments and the omission of critical deficiencies in production.

Source: developed by the authors of this study

Despite its shortcomings, the ICS in organic production enterprises is a key mechanism for ensuring product compliance with standards and requirements, which helps enterprises ensure product quality and transparency of production processes.

The findings of the study are consistent with the conclusions of other researchers regarding the content of organic production and the organisation of the internal control system in organic production. Ukrainian researchers have mostly considered internal control as a management function, linking ICS with inspection. P.O. Kutsik *et al.* (2020) noted that ICS is an independent function that acts as a means of establishing feedback, so that the management staff of the enterprise clearly monitors the progress of the implementation of their decisions. Ya.I. Mulyk (2020) shared the same opinion when considering internal control as a significant basis for enterprise management, since it is the ICS that ensures verification of the effectiveness and implementation of management decisions, identification, and elimination of deviations in financial and economic activities and the accounting system, as well as control over the availability and use of material resources of the enterprise. It was found that this approach implies that the primary purpose of internal control is to identify deviations in the financial and economic activities of an

enterprise. However, the above conclusions limit internal control to verification and feedback only, which is unsuitable in the case of organic production.

R.O. Savchenko *et al.* (2019) also presented an interpretation of internal control as part of the overall enterprise management system. At the same time, the researchers emphasised that the accounting system should play an active role and a leading role in the information support of the control system. The present study confirmed the researchers' point that accounting is an integral component of internal control information support but noted that its role in the context of organic production is not the principal one. In organic production, the understanding of internal control is broader and includes not only the verification of accounting data, but also compliance with environmental standards, pollution risk assessment, monitoring of compliance with technological processes, and certification requirements. Specifically, this study argued that internal control involves a set of measures aimed at monitoring and assessing compliance with certification standards, while the internal control system is part of the quality assurance system (Hajiyeva *et al.*, 2024).

In the context of the study, the views of foreign researchers who link internal control in organic production with product certification were considered. An internal control system

(ICS) is a part of a documented quality assurance system that enables an external certification body to delegate periodic audits of individual group members to a designated body or unit within the certified operator (Internal Control Systems (ICS) for group certification, n.d.). In his study, P. Kumar (2023) interpreted the internal control system as a structured system that organic producers use to ensure that their products meet organic standards. It included a series of checks, documentation, and regular inspections to maintain the integrity of organic products. This approach helped to streamline the certification process, especially in organic production, where compliance with standards is critical to maintaining product status. The present study agreed with this point of view, as the ICS at the operator level plays a key role in maintaining ongoing monitoring and ensuring compliance with standards.

F. Meinshausen *et al.* (2019) reported that in low- and middle-income countries, about 80% of the world's organic producers are smallholders for whom individual certification would be unaffordable, and that group certification allows them to be recognised as organic. Groups of farmers certified by a third-party certification body implemented an internal control system. This aspect is crucial as it underlines the social and economic importance of the system for ensuring access to the organic market for small farmers. Accordingly, the ICS not only helped to maintain quality standards, but also served as a tool for social equity in organic production.

A.M. Varghese (2024) identified the purpose of an internal control system in organic production as monitoring and managing all aspects of production (from seed selection to harvesting), which ensures compliance with organic standards, reduces the risk of contamination or fraud, and maintains consumer confidence in organic products. This confirmed the idea that an internal control system should not only be a verification mechanism, but also a means of strategic risk management and compliance at every stage of the production process. The present study supported this approach, as it noted that for organic enterprises to function effectively, internal control should include all parts of the production cycle.

The findings of this study are in line with the statement of researchers that risk management in organic production is a component of the product quality assurance system. An effective system of risk management inherent in agricultural activities, according to E. Kalyuga *et al.* (2023), is a component of the ICS, which consists in identifying and defining measures to manage them. The use of COSO-ERM (Enterprise Risk Management) as an integrated approach to internal control allows for a systematic and comprehensive risk management strategy, which is essential for organic enterprises, where the quality of products is particularly demanding.

Risk assessment involves a thorough investigation of the factors that can lead to contamination of organic products in such a way that they lose their organic status. The availability and implementation of quality management systems is subject to inspection by certification bodies and authorities (Gulieva & Richter, 2018). It was noted that general approaches to risk management should be adapted to the specifics of organic production, since standard risk assessment methods do not consider all environmental and biological factors specific to organic production. Existing regulatory requirements are strict but not flexible enough to respond to the specific risks of organic production (seasonal fluctuations, biological pest control methods, etc.). A.Yu. Kril (2024) also considered the internal control system as a risk management tool, as an integral element of increasing the profitability of the enterprise, as a mechanism for strategic business development. This approach enriched the discussion on how effective risk management can not only ensure compliance with certification requirements, but also contribute positively to the economic performance of the enterprise.

CONCLUSIONS

The study found that the internal control system is a key element of organic production, as it ensures product quality and compliance with organic sector standards. Its structure covers a wide range of components, such as monitoring of production processes, documentation, staff training, and regular inspections, each of

which is essential for the proper functioning of organic production. In organic production, internal control should be considered not only as a mechanism for verification and monitoring, but also as a key component of the overall quality assurance system. It covers all stages of the production process, from the selection of raw materials to the finished product, which allows companies to ensure that their products meet organic standards.

The key components of the internal control system at organic production enterprises include the manual, rules, the ICS standard, personnel and functions, risk management systems, traceability of the production and supply chain and their interconnection. The implementation of an effective internal control system is a vital means of managing risks that could adversely affect the organic status of products, e.g., through contamination. The internal control system increases the level of transparency of production processes, which helps to strengthen consumer confidence in organic products and increase their market value. The conventional understanding of internal control as an

accounting tool does not fully meet the needs of organic production.

Effective implementation of the internal control system improves consumer confidence in organic products, increases their competitiveness in the market, and strengthens business sustainability in the face of market challenges. The study of the internal control system in organic production opens avenues for further improvement of quality management methods (digital technologies for process monitoring; innovative quality control methods (e.g., biosensors for soil and product monitoring; staff training and development) and standards in this sector. The findings may be useful for the organisation of internal control in organic production. Further research is necessary to improve the existing internal control standards and adapt them to the Ukrainian and international markets.

ACKNOWLEDGEMENTS

None.

CONFLICT OF INTEREST

None.

REFERENCES

- [1] Artysh, V.I., & Artysh, N.V. (2022). [State of modern development and production of organic products in the world](#). *Scientific Collection "InterConf"*, 127, 8-13.
- [2] Bodnar, O. (2021). Internal control of the quality of agricultural products. *Economy and Society*, 26. doi:10.32782/2524-0072/2021-26-67.
- [3] Burkovska, A. (2022). [Production of organic products in the context of food security of Ukraine](#). In *Materials of the XIV all-Ukrainian scientific and practical conference "Problems and prospects of the development of the economy of Ukraine: The view of the youth"* (pp. 9-11). Cherkasy: Cherkasy State Business College.
- [4] Chaika, T.O., Barabolya, O.V., Korotkova, I.V., & Krykunova, V.Yu. (2021). [Relevance of regulatory and legal regulation of certification and quality of organic agricultural products](#). In *Materials of the all-Ukrainian scientific and practical internet conference "Productivity management innovations and winter wheat grain quality improvement"* (pp. 192-197). Poltava: Poltava State Agrarian University.
- [5] Commission Regulation (EC) No. 889/2008 "On Laying Down Detailed Rules for the Implementation of Council Regulation (EC) No. 834/2007 'On Organic Production and Labelling of Organic Products With Regard to Organic Production, Labelling and Control'. (2008, September). Retrieved from <https://eur-lex.europa.eu/eli/reg/2008/889/oj>.
- [6] DSTU 7877:2015. (2015). *Organic production. Production documentation of agricultural enterprises. General requirements*. Retrieved from <https://csm.kiev.ua/nd/nd.php?z=7877%3A2015&st=0&b=1>.
- [7] Eatorganic. (n.d.). Retrieved from <https://eatorganic.in.ua/company/osio>.
- [8] GalexAgro. (n.d.). Retrieved from <https://autoline.ua/galex-agro/>.
- [9] Gulieva, K., & Richter, T. (2018). [Guidelines for risk management during post-harvest processing, storage and transportation of organic products](#). Kyiv: LLC "KyuS".

- [10] Haiduchok, T., & Ivashko, T. (2024). Optimisation of internal cost control of agricultural enterprises: Key approaches and practical recommendations. *Scientific Collection "InterConf+",* 47(209), 110-121. [doi: 10.51582/interconf.19-20.07.2024.009](https://doi.org/10.51582/interconf.19-20.07.2024.009).
- [11] Hajiyeva, A., Mammadova, U., Tanriverdiyeva, G., & Kovalenko, O. (2024). Technological innovations in agriculture: Impact on production efficiency. *Scientific Horizons,* 27(1), 172-182. [doi: 10.48077/scihor.2024.172](https://doi.org/10.48077/scihor.2024.172).
- [12] Havryk, O.Yu. (2023). Organizational and economic principles of the functioning of the internal control system in agricultural enterprises. *Agrosvit,* 20, 59-65. [doi: 10.32702/2306-6792.2023.20.59](https://doi.org/10.32702/2306-6792.2023.20.59).
- [13] IFOAM Standard. (n.d.). Retrieved from <https://surl.lu/kuswwb>.
- [14] Internal Control Systems (ICS) for group certification. (n.d.). Retrieved from <https://surl.lu/pwafkl>.
- [15] Kalyuga, E., Hryshchuk, G., & Kalyuga, O. (2023). Implementation of COSO-ERM internal control integrated concept in Ukraine. *Herald of Economics,* 2, 119-129. [doi: 10.35774/visnyk2023.02.119](https://doi.org/10.35774/visnyk2023.02.119).
- [16] Karabassov, R., Nurmaganbetov, K., Aidynov, Z., Orynbekova, G., & Khapova, A. (2022). The main areas of development of organic agriculture in the Republic of Kazakhstan. *Scientific Horizons,* 25(9), 106-116. [doi: 10.48077/scihor.25\(9\).2022.105-116](https://doi.org/10.48077/scihor.25(9).2022.105-116).
- [17] Kril, A.Yu. (2024). Feasibility of implementation of internal control systems by entities of small businesses. *Economy and Society,* 61. [doi: 10.32782/2524-0072/2024-61-148](https://doi.org/10.32782/2524-0072/2024-61-148).
- [18] Kumar, P. (2023). *Effective implementation strategies for internal control system (ICS)*. Retrieved from <https://surli.cc/bqoobi>.
- [19] Kutsik, P.O., Martsenyuk, R.A., Makaruk, F.F., & Chik, M.Yu. (2020). *Integrated system of accounting and internal control in market management*. Lviv: Lviv University Publishing House.
- [20] Law of Ukraine No. 2496-VIII "On the Basic Principles and Requirements for Organic Production, Circulation and Labelling of Organic Products". (2018, July). Retrieved from <https://zakon.rada.gov.ua/laws/show/2496-19#Text>.
- [21] Legislative review of group certification of small and medium-sized organic farmers in Central Asia. (2021). Retrieved from https://pdf.usaid.gov/pdf_docs/PA00Z947.pdf.
- [22] Livinsky, A.I. (2020). State regulation, production certification and realization of organic products in Ukraine. *Business Inform,* 6, 167-173. [doi: 10.32983/2222-4459-2020-6-167-173](https://doi.org/10.32983/2222-4459-2020-6-167-173).
- [23] Meinshausen, F., Richter, T., Blockeel, J., & Huber, B. (2019). *Internal control systems in organic agriculture: Significance, opportunities and challenges*. Switzerland: Research Institute of Organic Agriculture.
- [24] Mulyk, Ya.I. (2020). Methodical and organizational approaches to the system of internal control at the enterprise. *Agrosvit,* 17-18, 28-38. [doi: 10.32702/2306-6792.2020.17-18.28](https://doi.org/10.32702/2306-6792.2020.17-18.28).
- [25] Mylovanov, E. (2018). *The value of organic agriculture in the system of development of rural areas*. *Herald of Lviv National Agrarian University: Economy of the Agricultural Industry,* 25, 87-98.
- [26] Organic Milk. (n.d.). Retrieved from <https://organic-milk.com.ua/>.
- [27] Regulation of the European Parliament and Council No. 2018/848 "On Organic Production and Labeling of Organic Products and On the Repeal of Council Regulation No. 834/2007". (2018, May). Retrieved from <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32018R0848>.
- [28] Resolution of the Cabinet of Ministers of Ukraine No. 970 "On Approval of the Procedure (Detailed Rules) for Organic Production and Circulation of Organic Products". (2019, October). Retrieved from <https://zakon.rada.gov.ua/laws/show/970-2019-%D0%BF#Text>.
- [29] Savchenko, R.O., Savchenko, N.M., & Demyanyuk, I.V. (2019). Internal control: Problems and perspectives. *Efficient Economy,* 9. [doi: 10.32702/2307-2105-2019.9.51](https://doi.org/10.32702/2307-2105-2019.9.51).
- [30] Sharyi, G., Nesterenko, S., & Shchepak, V. (2021). Organization of production at organic farming enterprises. *Agrarian Economy,* 14(1-2), 75-81. [doi: 10.31734/agrarecon2021.01-02.075](https://doi.org/10.31734/agrarecon2021.01-02.075).
- [31] Stynava organic garden. (n.d.). Retrieved from <https://stynavagarden.com/>.
- [32] Ukrainian organic producers will take part in SIAL Paris 2024. (2024). Retrieved from <https://organicinfo.ua/news/sial2024/>.

- [33] Varghese, A.M. (2024). *The integral role of internal control systems in organic growers group certification*. Retrieved from <https://surl.li/xisems>.
- [34] Proorganica. (n.d.). Retrieved from <https://www.proorganica.com/uk-UA/about>.

Олена Корогод

Аспірант

Національний університет біоресурсів і природокористування України

03041, вул. Героїв Оборони, 13, м. Київ, Україна

<https://orcid.org/0009-0004-5604-320X>

Микола Биков

Дорадник з агрономії, біологічного захисту рослин, органічних добрив, агротехніки

Громадська спілка «Зелені Агро Рішення»

08539, вул. Шевченка, 110А, с. Тарасівка, Київська обл., Україна

<https://orcid.org/0009-0003-9608-3399>

Система внутрішнього контролю в органічному виробництві: структура та функції

Анотація. Дослідження було обумовлене зростаючою популярністю органічного виробництва у світі та в Україні, що вимагає забезпечення високих стандартів якості та безпеки продукції. Глобалізація ринків, зростання конкуренції, посилення вимог з боку споживачів, потребують від підприємств органічного сектору розробки та впровадження ефективної системи внутрішнього контролю (СВК). Мета статті полягала у дослідженні структури системи внутрішнього контролю на підприємствах виробництва органічної продукції, визначенні ключових функцій системи внутрішнього контролю і їх ролі у забезпеченні якості продукції та дотриманні встановлених стандартів. У роботі використовувались загальнонаукові та спеціальні методи дослідження, зокрема абстрактно-логічний метод, метод порівняльного аналізу, метод експертних оцінок, метод моделювання та симуляції, SWOT-аналіз. Було встановлено, що на сільськогосподарських підприємствах, які є виробниками органічної продукції, внутрішній контроль є основою успішної сертифікації і передбачає комплекс заходів, спрямованих на моніторинг та оцінку дотримання стандартів сертифікації. Проведений аналіз ключових аспектів внутрішнього контролю, зокрема, його принципів, ролі у забезпеченні якості продукції, дотриманні стандартів органічного виробництва та відповідності законодавству. Були визначені основні складові системи внутрішнього контролю, що забезпечують ефективне функціонування підприємства з виробництва органічної продукції: посібник, правила, стандарт СВК, персонал і функції, системи управління ризиками, простежуваність ланцюга виробництва і постачання та їх взаємозв'язок. Акцентовано увагу на тому, що система внутрішнього контролю повинна бути розширеною та інтегрованою складовою системи управління якістю продукції, а не лише інструментом для дотримання стандартів. Обґрунтовано, що організація системи внутрішнього контролю вимагає постійної уваги та ресурсів з боку керівництва та персоналу підприємства. Доведено, що впровадження ефективної системи внутрішнього контролю може позитивно впливати на підвищення рівня довіри споживачів до органічної продукції, її конкурентоспроможності на ринку та стабільності бізнесу. Практична цінність роботи полягає в тому, що результати дослідження можуть бути використані для управління органічними виробничими процесами з метою забезпечення високої якості продукції та задоволення потреб споживачів

Ключові слова: сільське господарство; органічна продукція; споживачі; посібник СВК; правила СВК; управління ризиками