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Inventory as a tool for assessing and preserving the property potential of an agricultural enterprise

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Abstract. The article emphasises the importance of inventory as a means of assessing and maintaining the property potential of agricultural enterprises amidst increasing business risks and environmental instability. The purpose of the study was to deepen the theoretical and methodological foundations of stock management in agricultural enterprises from the perspective of its functional significance in property potential management. The study's methodology included general scientific and specialised methods, such as analysis and synthesis, observation, generalisation, grouping, and the institutional approach. The study examined the composition and structure of property potential in agricultural enterprises, identified the specific features of inventory for individual asset groups taking into account sectoral characteristics, and systematised the functions of inventory

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within the property management system. The results demonstrate that inventory ensures consistency between the actual condition of assets and accounting data, improves the quality of managerial decisions, and minimises the risk of property loss by performing interrelated control, informational, analytical, and managerial functions. The study classified the main risks of property potential loss into organisational, accounting, technical, and external categories and proposed effective, inventory-based mechanisms to limit them. Additionally, the study developed methodological approaches to differentiate inventory procedures, considering the specifics of biological assets and production stocks. The necessity of a differentiated, risk-oriented approach to organising inventory procedures was substantiated. The practical significance of the results lies in the possibility to use the recommendations to strengthen internal control, plan asset renewal strategically, and improve property management efficiency in agricultural enterprises

Keywords: internal control; asset management; accounting information; biological assets; risk minimisation; production stocks

INTRODUCTION

Modern agricultural production operates under conditions of critical vulnerability of its asset base, which is caused not only by market instability but also by specific industry factors: the biological nature of the assets, their geographical dispersion, and the seasonal nature of their use. In the context of disrupted logistics chains and growing security threats, the traditional reliance solely on documentary accounting data becomes insufficient, as it often leads to a distorted view of the actual state of resources. The lack of an effective system for physical verification of assets leads to risks of hidden losses, waste of supplies, and inefficient use of equipment, which directly threatens the financial stability of agricultural producers. This highlights the need to rethink existing management tools capable of ensuring not only the recording of asset availability but also their qualitative assessment and physical preservation.

One of the key tools for asset management is inventory, which goes way beyond a mere formal data reconciliation. Researchers S.V. Bardash & N.P. Kuzyk (2021) convincingly demonstrate how a strictly limited understanding of inventory as just an accounting method is invalid, emphasising its independent significance within a company's capital control system. Developing this idea in the context of industry-specific characteristics, researchers O.V. Leha *et al*. (2025) determined that in agricultural enterprises, inventory takes on the form of a comprehensive internal control method that allows not only for confirming the presence of resources but also for evaluating the effectiveness of their use at various stages of the operational cycle.

Ensuring the accuracy of accounting information remains a critical aspect. According to L.V. Hutsalenko & Yu.M. Nykitenko (2023), inventory serves as a safeguard for the reliability of financial statements, minimising information risks for stakeholders. At the same time, researcher N.S. Marushko (2023), considering the internal control system as a mechanism for preventing fraud, pointed out that regular inventory procedures create effective barriers against abuse and the illegal disposal of assets, which is critical for ensuring the economic security of the enterprise. A separate body of research is devoted to the specific nature of agricultural assets, which significantly complicates valuation procedures. In particular, in the work by P. Campos-Llerena *et al*. (2025), based on a systematic review of the application of international standards, the complexities of accounting for and valuing biological assets were analysed; these assets require adaptive approaches to inventory due to biological transformation processes.

The current challenges associated with war and uncertainty have given rise to new scholarly perspectives on the role of inventory in asset preservation. A group of researchers led by V. Lytvynenko *et al*. (2024) justified the use of asset and liability inventory as a basic tool for restoring accounting in agricultural enterprises affected by military operations. At the same time, researchers V. Zhuk *et al*. (2023) developed approaches to assessing war-related losses in agribusiness, where inventory is viewed as the primary procedure for recording losses and establishing an evidentiary basis. In light of the above, it is timely to deepen the theoretical and methodological foundations for the application of inventory in agricultural enterprises from the perspective of its role in assessing and preserving asset potential. This necessitates the generalisation of scientific approaches, the clarification of the functional purpose of inventory, and the determination of its place in the asset management system of agricultural enterprises. The aim of the study was to expand the theoretical and methodological foundations for the application of inventory in agricultural enterprises, taking into account its functional role in managing asset potential, as well as to systematise the functions of inventory and the

risks of asset loss, and to justify methodological approaches to their minimisation.

MATERIALS AND METHODS

The methodological basis of the study consisted of a combination of general scientific and specialised research methods, the application of which enabled a comprehensive solution to the set tasks. The method of theoretical generalisation and the abstract-logical method were applied to reveal the essence of inventory and the transformation of its role in modern economic conditions. Using the method of analysis and synthesis, the significance of inventory as a key tool for assessing and preserving the asset potential of an agricultural enterprise was substantiated, and causal relationships between the quality of accounting information and the effectiveness of management decisions were identified. The observation method was used to evaluate existing organisational approaches to inventory, documenting its results, and identifying deficiencies in the internal control system that affected the reliability of accounting data. Methods of specification, grouping, and comparison were employed to systematise approaches to inventory within the enterprise's accounting and control system, which enabled the classification of identified problems and the formulation of research conclusions. A significant place in the research methodology was occupied by the functional approach, which was applied to identify and thoroughly substantiate the control, informational, analytical, and managerial functions of inventory. This allowed to view inventory not as a static procedure, but as a dynamic process that provides management with relevant information. The study also employed a risk-based approach and elements of factor analysis. These methods made it possible to systematise the internal (organisational and accounting) and external risks of asset loss at agricultural enterprises, assess the extent of their impact, and identify effective inventory mechanisms to mitigate them.

An institutional approach was applied to critically analyse the legal framework governing inventory of assets and liabilities. A content analysis was conducted of the provisions of Law of Ukraine No. 996-XIV (1999) and Order of the Ministry of Finance of Ukraine No. 879 (2014). To account for the specifics of wartime and approaches to recording losses, provisions regarding the determination of damage caused to Ukraine as a result of armed aggression (Resolution of the Cabinet of Ministers of Ukraine No. 326, 2022) were additionally utilised. Furthermore, the methodological framework was supplemented with methods of applied managerial and regulatory-analytical analysis. Their application provided a rationale for specific methodological approaches to the organisation and frequency of inventory for certain asset groups (biological assets, production inventories), and also served as the basis for formulating strategic management decisions aimed at preserving, updating, and restoring the property potential of an agricultural enterprise under conditions of uncertainty. The analysis of regulatory requirements was supplemented by a synthesis of scientific approaches to the classification of asset management risks and the organisation of inventory procedures. Based on the results obtained, a logical grouping of risk factors was carried out according to the nature of their manifestation and the scope of their impact on individual components of the asset base. This enabled the development of an analytical classification of risks and corresponding inventory mechanisms for their minimisation, systematised in the tables in the following section.

The procedures for assessing the actual condition of assets as part of inventory are examined with regard to their economic nature and accounting specifics. For fixed assets, the process includes a physical inspection, reconciliation of inventory numbers with accounting records, and analysis of technical documentation and certificates of suitability or defects. For production inventories, methods of physical recounting or weighing were applied, as well as monitoring of storage conditions and shelf life. Regarding biological assets, an inspection of their actual condition, reconciliation with primary movement documents, and recording of losses or seasonal deviations were taken into account. The information base for the study consisted of scientific publications on the issues of asset inventory, internal control, and management of enterprises' property potential, published primarily between 2008 and 2025. Sources were selected based on criteria of thematic relevance, scientific novelty, and methodological significance for the agricultural sector. The theoretical provisions and conceptual approaches outlined in the works of M.Ya. Demianenko & V.V. Chudovets (2008), N.M. Mezentseva *et al.* (2020), O.S. Vysochan *et al.* (2024), and other researchers, were used as the basis for summarising scientific positions and constructing analytical generalisations. These systematic approaches served as the basis for the structural-logical generalisations presented in Tables 1-5.

RESULTS

The asset potential of an agricultural enterprise and the role of inventory in its assessment

The asset potential of an agricultural enterprise is shaped by a combination of tangible, intangible, and financial resources that ensure the continuity of the production process and form the basis for achieving strategic development goals. Within the structure of this potential,

fixed assets, production inventories, biological assets, and other property elements occupy a special place; their effective use determines the enterprise's level of financial stability and its ability to adapt to changes in the external environment. Under these conditions, a reliable assessment of asset potential becomes a key management challenge, the resolution of which is impossible without the proper organisation of inventory procedures.

Inventory ensures that the actual quantity and condition of assets match the accounting records, thereby providing an objective picture of the company's actual asset base. Unlike a purely accounting-based approach, which relies on data from registers and financial statements, inventory allows for a direct assessment of the physical condition of assets, their degree of wear and tear, suitability for further use, and participation in the production process. It is this feature that determines its significance as a tool not only for control but also for the assessment of property resources in a broader economic context (Vysochan & Vysochan, 2018). For agricultural enterprises, inventory has additional significance due to the specific nature of their asset structure. The presence of biological assets, the seasonality of production, and the dependence of performance on natural and climatic conditions complicate the process of assessing asset potential and increase the risk of distorting accounting information. Under such conditions, inventory serves as a mechanism for determining the value and actual condition of assets, which is particularly important for making management decisions regarding production planning, cost optimisation, and ensuring the continuity of the enterprise's operations. The information obtained as a result of inventory procedures is used as an analytical basis for making management decisions regarding the optimisation of the asset structure and improving the efficiency of their use. The results of the audit may serve as a basis for determining the feasibility of repairing, modernising, or writing off assets, adjusting procurement and inventory policies, and strengthening internal controls over the preservation of property. Inventory serves both a control and an informational-analytical function within the enterprise management system.

The practical significance of inventory is evident in typical management situations that arise in the activities of agricultural enterprises. If surpluses or discrepancies are identified in production inventories, the results of the audit can serve as a basis for adjusting inventory levels and revising logistics decisions. The identification of unserviceable or obsolete fixed assets justifies decisions regarding their modernisation or write-off. Recording losses or deviations in the condition of biological assets may necessitate adjustments to production plans and internal control measures. Inventory results allow for the identification of both available resources and property losses, surpluses, and unused or inefficiently utilised assets. This creates the conditions for adjusting accounting data, revising management approaches, and increasing the transparency of information regarding the company's financial condition. In this context, inventory serves an informational function, providing enterprise management with relevant data to assess the level of asset potential and determine directions for its preservation and development (Demianenko & Chudovets, 2008). An analysis of the composition of an agricultural enterprise's asset potential indicates that its structure is heterogeneous and requires a differentiated approach to evaluating individual asset groups. Fixed assets form the material basis of production, production inventories ensure the continuity of the operational cycle, and biological assets combine the characteristics of property and the results of production activities. Inventory allows for the reconciliation of accounting figures for each of these asset groups with the actual state of the assets, which is a necessary condition for an objective assessment of the enterprise's overall asset potential. In general, inventory should be viewed as a system-forming tool for assessing the asset potential of an agricultural enterprise, which ensures the reliability of accounting information, improves the quality of management decisions, and creates an information basis for further analysis of the efficiency of asset utilisation. It is at this stage that the basis for the implementation of the control and management functions of inventory is formed, which determines its significance in the process of preserving the enterprise's asset potential. A summary of scientific approaches to determining the composition and structure of an enterprise's asset potential is systematised in Table 1.

Table 1. *Composition and structure of an agricultural enterprise's asset base*

Component of the Asset Base	Assets and Identification Characteristics	Inventory Procedures/Verification Tests	Analytical Interpretation for the Assessment
Fixed assets	Buildings, structures, machinery, equipment	Actual presence; reconciliation of inventory numbers and technical passports; assessment of technical condition and suitability; confirmation of rights to the asset	Form the material basis of production
Production inventories	Raw materials, supplies, fuel	Recounting/weighing; reconciliation of batches and storage locations; assessment of storage conditions and shelf life; verification that inventory levels meet production needs	Ensure operational continuity

Table 1, Continued

Component of the Asset Base	Assets and Identification Characteristics	Inventory Procedures/Verification Tests	Analytical Interpretation for the Assessment
Biological assets	Plants, livestock	Inspection and confirmation of quantitative indicators (livestock/area); reconciliation with movement records; assessment of condition and losses; recording of seasonal variations	Combine production and financial functions
Other assets	Intangible and circulating assets	Documentary reconciliation of rights and availability; confirmation of the reality of balances; verification of contracts/registers; clarification of asset classification	Supplement the overall asset potential

Source: *compiled by the authors based on M.Ya. Demianenko & V.V. Chudovets (2008), O.S. Vysochan & O.O. Vysochan (2018)*

The structure of an agricultural enterprise's asset base is multifaceted and requires a systematic approach to assessment. The results of the inventory ensure that the actual status of individual asset components aligns with accounting data, thereby forming the informational foundation for a comprehensive analysis of the asset base. At this stage, inventory goes beyond a purely control procedure and takes on a managerial dimension, as it allows for the identification of structural imbalances, opportunities to improve the efficiency of asset utilisation, and potential threats to their preservation. This determines the relevance of further consideration of the functional significance of inventory in the asset management system of an agricultural enterprise.

Functions of inventory in the asset potential management system of an agricultural enterprise

Inventory in the asset management system of an agricultural enterprise performs interrelated functions that ensure the practical implementation of asset potential assessment based on actual data. Its functional content can be reasonably considered through the lens of control, informational, analytical, and managerial components, which together form a methodological basis for decision-making regarding the preservation and use of assets (Demianenko & Chudovets, 2008; Vysochan & Vysochan, 2018).

The control function consists of establishing the compliance between the actual availability of assets and accounting data, as well as verifying adherence to storage conditions. Its result is the recording of deviations (shortages, surpluses, spoilage), identification of their causes, and the creation of grounds for corrective managerial actions. Within this function, stock-taking serves as a tool to ensure material responsibility and discipline in asset preservation, which is critically important for resource-intensive types of agricultural activities (Demianenko & Chudovets, 2008).

The informational function is implemented by generating relevant information about assets as of a specific date, particularly regarding their quantitative and qualitative characteristics and condition. Such data improve the quality of managerial information support, as they allow the comparison of accounting evaluations with the actual parameters of assets, reducing the risk of decision-making based on incomplete or distorted information (Vysochan & Vysochan, 2018).

The analytical function of inventory lies in the ability to assess the structure of assets, their usability, the degree of asset involvement in the production process, and the identification of reserves to enhance the efficiency of asset utilisation. Inventory results provide an empirical basis for analysing asset dynamics, justifying decisions on optimising inventory composition, assessing the feasibility of repairing or replacing fixed assets, and refining organisational parameters for storage and accounting (Mezentseva *et al.*, 2020).

The managerial function ensures the transformation of inventory data into managerial decisions aimed at preserving and developing asset potential. Based on this function, measures are determined to strengthen internal control, improve accountability procedures, optimise resource provision, reduce losses, and increase the efficiency of asset use within the enterprise's operational activities. In this context, stock-taking serves as a feedback tool, enabling the adjustment of managerial influences according to the actual state of assets (Mezentseva *et al.*, 2020). The functional significance of inventory in managing the asset potential of an agricultural enterprise is summarised in Table 2.

Table 2. *Functions of inventory and their significance in managing the asset potential of an agricultural enterprise*

Function	Function Manifestation		Managerial Application
	Informational Result	Control-Evaluation Result	
Control	Recording the actual availability and condition of assets	Identifying deviations (shortages/surpluses/spoilage) and their causes	Loss prevention; strengthening financial responsibility
Informational	Updated data on quantity, quality, and condition of assets on the stock-taking date	Confirming the reliability of accounting indicators	Improving the quality of management decisions and resource planning

Table 2, Continued

Function	Function Manifestation		Managerial Application
	Informational Result	Control-Evaluation Result	
Analytical	Indicators for analysing asset structure and utilisation	Identification of inefficiently used or unsuitable assets	Identifying efficiency reserves; optimising the asset structure
Managerial	Basis for adjustments in asset management policies	Monitoring the implementation of decisions based on stock-taking results	Implementing measures to preserve and develop asset potential

Source: *compiled by the authors based on M.Ya. Demianenko & V.V. Chudovets (2008), O.S. Vysochan & O.O. Vysochan (2018), N.M. Mezentseva et al. (2020)*

The systematisation of stock-taking functions indicates its comprehensive role in forming managerial influence on the asset potential of an agricultural enterprise. The interrelated implementation of control, informational, analytical, and managerial functions creates conditions for timely identification of factors threatening asset preservation, as well as for justifying managerial decisions aimed at minimising losses and enhancing asset utilisation efficiency. This underscores the need for further research on risks of asset potential loss and the role of inventory in their prevention and mitigation.

Risks of asset potential loss in agricultural enterprises and the role of inventory in their minimisation

The asset potential of an agricultural enterprise is affected by a complex of risks arising both within the internal environment and under external influences. These risks vary in nature and impact, but collectively they can lead to direct and indirect asset losses, reduce reproductive capacity, and deteriorate financial performance. In this context, stock-taking acts not only as a tool for recording the consequences of risks but also as a mechanism for their early detection and limitation.

Internal risks to asset potential include organisational, accounting, and managerial risks associated with deficiencies in the internal control system, breaches of material responsibility, untimely updating of accounting data, and improper organisation of asset storage. In agricultural production, such risks are exacerbated by the territorial dispersion of assets, numerous storage locations for material values, and the seasonal nature of certain asset groups. Stock-taking allows these risks to be localised by establishing the actual state of assets, verifying storage conditions, and identifying deviations from established norms.

External risks are related to the impact of macroeconomic, institutional, and climatic factors. Market price fluctuations, changes in the regulatory framework, emergencies, and adverse weather conditions directly affect the preservation and valuation of assets in agricultural enterprises. In such conditions, stock-taking plays a stabilising role by updating accounting data and providing an informational basis for adapting managerial decisions to changes in the external environment.

A separate group includes risks associated with physical wear and moral obsolescence of assets, which is typical for technically complex and capital-intensive property. The lack of timely information on the real technical condition of fixed assets leads to inefficient resource use, higher maintenance costs, and reduced production productivity. Stock-taking enables the identification of such risks through assessing asset suitability for further use and justifying the feasibility of repair, modernisation, or write-off.

Information-related risks also pose a significant threat to asset potential, arising from discrepancies between actual asset conditions and accounting data. Such discrepancies distort analytical results, complicate the evaluation of asset utilisation efficiency, and reduce the validity of managerial decisions. In this case, stock-taking serves as a tool to restore informational reliability by adjusting accounting indicators to the actual state of resources. A generalised classification of risks and corresponding stock-taking mechanisms for their mitigation is presented in Table 3.

Table 3. *Risks of asset potential loss in agricultural enterprises and inventory mechanisms for their mitigation*

Risk Group	Typical Manifestations and Sources	Potential Consequences for Asset Potential	Stock-Taking Safeguards and Control Actions
Organisational	Violations of storage conditions, weak internal control	Physical losses, spoilage, unauthorised movement; reduced asset reproductive capacity	Inspection of storage locations; reconciliation of responsible personnel; stock-taking records; recording violations and directives
Accounting	Discrepancy between actual and accounting data	Distorted asset valuations in reports; errors in managerial calculations; financial losses due to unreliable data	Reconciliation of registers and actuals; documentary confirmation of balances; reflecting stock-taking results in accounting
Technical	Physical wear and moral obsolescence of assets	Accelerated asset retirement; increased repair costs; reduced productivity and reliability of production processes	Assessment of technical condition; suitability/defect certificates; clarification of useful life; decisions on repair/write-off

Table 3, Continued

Risk Group	Typical Manifestations and Sources	Potential Consequences for Asset Potential	Stock-Taking Safeguards and Control Actions
Informational	Distorted data for analysis and management	Incomplete reflection of assets; loss of resource control; reduced quality of planning and analysis	Verification of accounting completeness; identification of unrecorded assets; elimination of duplicates; updating inventory cards
External	Influence of market and natural factors	Asset depreciation/loss due to force majeure; need to adjust valuations and plans; increased restoration costs	Recording losses and damages; documenting causes; adjusting value/condition; forming grounds for managerial recovery measures

Source: *compiled by the authors based on M.Ya. Demianenko & V.V. Chudovets (2008), O.S. Vysochan & O.O. Vysochan (2018), N.M. Mezentseva et al. (2020)*

The identified risk groups and inventory mechanisms for their limitation confirm the need for a differentiated approach to organising inventory procedures, taking into account the specifics of the assets and the operating conditions of agricultural enterprises. This necessitates the generalisation of methodological approaches to inventory, aimed at increasing its effectiveness in the process of assessing and preserving property potential.

Methodological principles for organising inventory

The effectiveness of inventory as a tool for assessing and preserving the asset potential of an agricultural enterprise largely depends on the methodological approaches to its organisation and implementation. The industry-specific nature of agricultural production necessitates the adaptation of general inventory procedures to the characteristics of assets, conditions of their use, and the seasonal nature of activities. This entails the differentiation of approaches to inventorying individual asset groups and determining the optimal frequency of its execution. One of the key methodological prerequisites is a clear identification of inventory objects, taking into account their economic purpose and role in forming the asset potential. For fixed assets, primary importance is given to evaluating their technical condition, degree of wear, and suitability for further use. Production stocks require control not only in terms of quantitative indicators but also regarding storage conditions, usage periods, and compliance of actual balances with normative production needs. Biological assets demand a special approach, as they combine the properties of property and the results of the production process, which complicates their inventory assessment. An important methodological aspect is determining the frequency of conducting inventory. For agricultural enterprises, it is advisable to combine mandatory annual inventories with selective or unscheduled checks during periods of increased risk of asset loss. This approach allows for the timely detection of deviations in asset status, reduces information gaps between actual and recorded asset conditions, and increases the operational efficiency of management decisions.

The methodological effectiveness of inventory is also determined by the level of coordination of the actions of inventory commissions, the quality of documentary recording of results, and the extent of their subsequent use in management. Formalisation of inventory procedures, clear assignment of responsibility, and provision for analytical processing of the obtained data create the prerequisites for transforming inventory from a formal control procedure into an effective tool for managing asset potential. A summary of methodological approaches to conducting inventory of the asset potential of an agricultural enterprise, taking into account industry-specific features, is presented in Table 4.

Table 4. *Methodological approaches to inventory of the components of the asset potential of an agricultural enterprise*

Inventory Object	Methodological Requirements and Managerial Focus
Fixed assets	Assessment of technical condition and serviceability. Justification for renewal and modernisation
Inventories	Control of quantities and storage conditions. Optimisation of stock levels and reduction of losses
Biological assets	Consideration of biological and seasonal factors. Ensuring continuity of production
Other assets	Verification of compliance with accounting records. Improvement of information reliability

Source: *compiled by the authors based on M.Ya. Demianenko & V.V. Chudovets (2008), O.S. Vysochan & O.O. Vysochan (2018), N.M. Mezentseva et al. (2020)*

The formulated methodological approaches to conducting inventory, taking into account the sectoral specifics of agricultural enterprises, create a basis for the practical use of its results in the process of asset management. Further analysis should be directed at determining managerial decisions made based on inventory results and assessing their role in preserving and restoring the asset potential of an agricultural enterprise.

Managerial decisions based on the results of inventory of the asset potential of an agricultural enterprise

The results of inventory form the informational basis for making managerial decisions aimed at preserving and restoring the asset potential of an agricultural enterprise. Their practical significance lies in the possibility of timely adjustment of managerial actions taking into account the actual condition of assets, identified deviations, and available reserves for increasing the efficiency of property use. In this context, inventory acts as an element of integrating accounting information into the enterprise management system. One of the key directions of using inventory results is substantiating managerial decisions regarding the renewal, modernisation, or disposal of assets. Data on the technical condition of fixed assets, their degree of wear, and suitability for operation make it possible to determine the feasibility of capital investments, optimise repair and maintenance costs, and prevent irrational use of resources. This is particularly important for agricultural enterprises where a significant share of asset potential is concentrated in machinery and production infrastructure.

The results of inventory are also used to optimise the management of production inventories and other current assets. The identification of surpluses, shortages, or slow-moving inventories creates the prerequisites for revising procurement policies, improving logistics processes, and reducing the level of losses during the storage and use of material resources. In this way, inventory contributes to increasing operational efficiency and preserving the asset potential of the enterprise. An important direction in the use of inventory data is strengthening the system of internal control and material responsibility. Information about the identified deviations makes it possible to identify problematic areas in the organisation of accounting and control, clarify the responsibility of officials, and implement preventive measures aimed at preventing repeated losses of property. This contributes to the formation of a discipline of asset preservation and increases the level of managerial responsibility. The application of inventory results in managing the asset potential also has a strategic dimension. Generalised inventory data can be used to assess long-term trends in changes in the structure of assets, determine the priorities of investment development, and form programs for restoring the asset potential. In this aspect, inventory ensures feedback between the current condition of property and the strategic goals of the development of an agricultural enterprise. The main directions of using inventory results in managing and preserving the asset potential of an agricultural enterprise are summarised in Table 5.

Table 5. *Use of inventory results in managing the asset potential of an agricultural enterprise*

Vector of using inventory results	Content of managerial interventions	Expected effect for the asset potential
Fixed asset management	Renewal, repair, write-off of assets	Increasing the efficiency of property use
Stock management	Optimisation of the volume and structure of inventories	Reduction of losses and costs
Internal control	Strengthening responsibility and control	Prevention of repeated losses
Strategic planning	Formation of property development programs	Preservation and restoration of asset potential

Source: *compiled by the authors based on M.Ya. Demianenko & V.V. Chudovets (2008), O.S. Vysochan & O.O. Vysochan (2018), N.M. Mezentseva et al. (2020)*

The systematic use of inventory results in managerial activities demonstrates its practical value as a tool for preserving and developing the asset potential of an agricultural enterprise. The alignment of inventory data with operational and strategic managerial decisions ensures greater justification of management actions aimed at minimising property losses, optimising the structure of assets, and strengthening internal control. This creates the basis for further scientific interpretation of the obtained results in the context of comparing them with the conclusions of other studies and determining prospects for the development of inventory practices in agricultural enterprises.

DISCUSSION

The obtained results indicate the expediency of a conceptual reconsideration of the role of inventory in the management system of an agricultural enterprise. The interpretation of the results points to the transformation of inventory from an auxiliary procedure for reconciling accounting data into an independent tool for managing asset potential. Such an approach corresponds with contemporary scientific discussions on strengthening the functions of internal control, while at the same time reflecting the sectoral specificity of Ukraine's agricultural sector.

Considering inventory as the foundation of internal control correlates with the results of foreign studies on asset management in emerging markets. N.Y. Accostupa Huamán & P.O. Vega Espilco (2023) note that insufficient control over fixed assets leads to financial losses and a decline in the liquidity of enterprises. The obtained results expand this thesis taking into account

the agricultural specificity, where the territorial dispersion of assets and production risks increase the probability of losing control. Unlike approaches focused mainly on financial consequences, this study emphasises organisational and technical risks that directly affect production potential. The position of Ukrainian scholars also demonstrates similar tendencies. O.V. Leha *et al*. (2025) define inventory as a comprehensive method of internal control in agricultural enterprises. Their approaches to assessing the efficiency of resource use at different stages of the operational cycle are consistent with the results of this study. A. Sakun (2024) emphasises the importance of informational support for control, the source of which is the verification of the actual condition of assets. The argument of S.V. Bardash & N.P. Kuzyk (2021) regarding the limitation of interpreting inventory only as a method of accounting supports a broader understanding of its managerial role.

In international research, considerable attention is paid to the problem of discrepancies between accounting data and the actual condition of inventories. A. Shabani *et al*. (2021) point to the negative impact of accounting inaccuracies on planning and operational costs, while I.R. Destro *et al*. (2023) establish a relationship between the frequency of inspections and the efficiency indicators of distribution centers. In the agricultural sector, this problem is complicated by the biological nature of assets and the seasonality of production. This may be explained by the influence of natural losses and transformations that require the adaptation of standard procedures. The proposed differentiation of inventory measures for biological assets corresponds to the position of T. Rohova (2023) regarding the specifics of verifying living organisms.

The issue of digitalisation of inventory procedures is also actively discussed in contemporary literature. L.E. Fotoh (2025) draws attention to the gradual implementation of alternative digital methods for collecting evidence, while M. Salehi Shahrabi (2023) demonstrates the effectiveness of RFID technologies in reducing errors compared with manual counting. Ukrainian researchers L. Frundina & O. Artiukh (2020) emphasise the necessity of computerising the inventory process. At the same time, the results of this study indicate that for the agricultural sector a complete refusal of physical verification is premature. The position of O.M. Bondarenko & L.O. Rudenko (2022) regarding the improvement of inventory audit methodology is supported; however, the expediency of combining digital tools with professional assessment of the actual condition of assets is emphasised.

A separate direction of discussion concerns the valuation of biological assets. In a systematic review of the application of the IAS 41 standard, P. Campos-Llerena *et al*. (2025) emphasise the problem of subjectivity in determining fair value. The obtained results indicate that a well-organised inventory can reduce the level of such subjectivity through the verification of primary data. Similar approaches are supported by L.V. Hutsalenko & Yu.M. Nykitenko (2023), who link the reliability of information with the completeness of inventory procedures. Under conditions of martial law, inventory takes on additional importance. European studies, in particular Z. Gołaś (2020), consider inventory mainly under stable market conditions. In contrast, Ukrainian scholars V. Lytvynenko *et al*. (2024), O.S. Vysochan *et al*. (2024), and O.P. Kolisnyk *et al*. (2025) emphasise the role of inventory in restoring accounting and documenting losses. In this context, inventory may be considered as a mechanism for forming an evidentiary base regarding force majeure circumstances, which is also consistent with the approaches of V. Zhuk *et al*. (2022) and S.Y. Maksymov (2023). The integration of inventory into the system of economic security corresponds with the concept of internal control by N. Marushko (2023) and the classification of inventory challenges proposed by N.M. Mezentseva *et al*. (2020). The comparison of the research results with contemporary scientific approaches from 2020-2025 indicates a strengthening tendency toward expanding the functional content of inventory. The obtained generalisations demonstrate its importance as a tool for risk management, ensuring economic security, and maintaining the reliability of asset information. The practical implications lie in the necessity of implementing risk-oriented inspections, adapting procedures to biological specificity, and combining physical control with digital technologies. Consideration of these aspects creates the foundation for the further formulation of the final provisions of the study.

CONCLUSIONS

Inventory has been defined as an integrated element of the asset management system of an agricultural enterprise that ensures the alignment of the actual condition of assets with accounting data and increases the validity of managerial decision-making. It has been proven that this instrument forms a reliable information base for management, significantly reduces information gaps between accounting and actual indicators, and strengthens the controllability of property resources under conditions of uncertainty. The systematisation of the functional significance of inventory made it possible to reveal its role through the interaction of control, informational, analytical, and managerial components. It has been established that the comprehensive implementation of these functions ensures the timely

identification of deviations in the condition of assets, the identification of internal reserves, and the enhancement of the effectiveness of internal control, transforming inventory from a formal procedure into an effective management mechanism.

The classification of risks of loss of property potential into organisational, accounting, technical, informational, and external categories made it possible to determine the potential of inventory in preventing them. It has been established that regular verification of assets contributes to the detection of shortages, spoilage, obsolescence, and inefficiently used assets, which minimises unproductive losses and provides management with up-to-date data for responding to threats. The substantiation of methodological approaches to the adaptation of inventory procedures demonstrated the need to consider the sectoral specifics of agricultural production, primarily seasonality and the biological nature of assets. The proposed differentiated approach to inventory objects, along with the combination of scheduled inspections and selective control in high-risk areas, creates conditions for improving the effectiveness of assessment and the preservation of property potential. Prospects for further research are associated with the quantitative substantiation of the economic effect of implementing risk-oriented inventory procedures and the study of the impact of inventory on the turnover and profitability indicators of assets of agricultural enterprises.

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Інвентаризація як інструмент оцінки та збереження майнового потенціалу аграрного підприємства

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Анотація. У статті обґрунтовано роль інвентаризації як інструменту оцінки та збереження майнового потенціалу аграрного підприємства в умовах зростання ризиків господарської діяльності та нестабільності зовнішнього середовища. Метою дослідження було поглиблення теоретико-методичних засад застосування інвентаризації в аграрних підприємствах із позицій її функціонального значення в управлінні майновим потенціалом. Методологічну основу дослідження становили загальнонаукові та спеціальні методи, зокрема аналіз і синтез, спостереження, узагальнення, групування та інституційний підхід. Досліджено склад і структуру майнового потенціалу аграрного підприємства, визначено особливості інвентаризації окремих груп активів з урахуванням галузевої специфіки, а також систематизовано функції інвентаризації в системі управління майном. У роботі доведено, що інвентаризація виконує взаємопов'язані контрольну, інформаційну, аналітичну та управлінську функції, які забезпечують узгодження фактичного стану активів із даними бухгалтерського обліку, підвищують якість управлінських рішень і сприяють мінімізації ризиків втрати майна. У роботі було класифіковано основні ризики втрати майнового потенціалу на організаційні, облікові, технічні й зовнішні та запропоновано дієві інвентаризаційні механізми їх обмеження. Крім того, розроблено методичні підходи до диференціації інвентаризаційних процедур, які врахували специфіку біологічних активів і виробничих запасів. Обґрунтовано доцільність диференційованого та ризик-орієнтованого підходу до організації інвентаризаційних процедур. Практичне значення отриманих результатів полягало в можливості використання запропонованих рекомендацій для посилення внутрішнього контролю, стратегічного планування оновлення активів та підвищення ефективності управління майном аграрних підприємств

Ключові слова: внутрішній контроль; управління активами; облікова інформація; біологічні активи; мінімізація ризиків; виробничі запаси