



IMPROVING THE ORGANIZATION AND INCREASING THE EFFICIENCY OF POULTRY FARMING

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ABSTRACT

The purpose of the research work is to substantiate theoretical principles and develop organizational and methodological recommendations for improving the management of poultry farming efficiency. In accordance with the goal, the main objectives of the study were determined: - study of the organizational and economic aspects of the formation, current state and efficiency of development of industrial poultry farming; - substantiation of theoretical provisions that determine the economic content, criteria and indicators for assessing the efficiency of poultry production in modern conditions; - development of methodological aspects of organizing production efficiency management and recommendations for improving the economic mechanism of management in poultry farming organizations; - determination of recommendations for rationalizing the production management system and improving its information base in the conditions of on-farm calculations in poultry farming.

KEYWORDS: *improvement, network, poultry, development, organizational, economic, basics*

INTRODUCTION

The formation and development of market relations, the operation of various forms of ownership and types of management in the agro-industrial complex system imply the widespread use of economic methods for managing agricultural production, including poultry farming. This necessitates fundamentally new approaches to managing modern poultry production, regulating economic relations and rational use of production potential in poultry farming. The implementation of these activities, in turn, requires substantiation of indicators of control and analytical support for management in order to make operational, tactical and strategic decisions to regulate poultry farming processes, find internal reserves for every possible increase in the efficiency of production in poultry farming organizations. At the same time, all management functions should act in interconnection as a single whole as a universal technology for substantiating management decisions in poultry farming to increase the efficiency of its development in any conditions, including under conditions of risk and uncertainty.

The study, based on an in-depth analysis of the state of poultry farming, concluded that in the industry as a whole, despite the increase in productivity and production volumes of poultry products, the profitability of product sales is decreasing, which requires a review of the activities of poultry farms, a change in priorities and the search for new ways to improve the efficiency of the industry. Therefore, the poultry production management system must take into account all elements and factors of production, including intensive and extensive. It is the management system that should be aimed at increasing production efficiency, that is, achieving social performance, economic benefits from the use of all types of resources and environmental efficiency. From this we can conclude that achieving production efficiency must be ensured in all areas (social, economic, environmental) through a synergistic effect. A synergistic effect can occur due to the comprehensive consideration of all factors in the system of operational, tactical and strategic production management. Thus, the efficiency of agricultural production is an economic category and is an object of management and the subject of knowledge of economic sciences. From here we can also state that efficiency as an economic category has content. The content of production efficiency is a system of criteria and indicators. The form of production efficiency is the way of organizing and expressing content. This method is implemented in the management system by implementing all management functions sequentially: forecasting, planning, accounting, control, analysis, organization of activities and economic systems, regulation of economic processes.

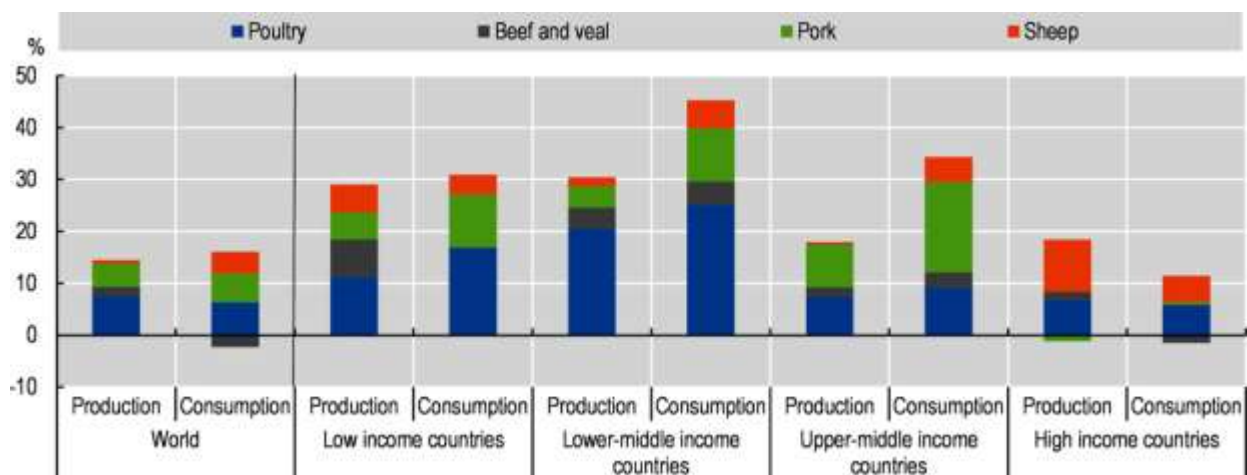
Knowledge of economic efficiency as a form of manifestation of the final result of the use of means of production and living labor, the result of economic activity at various levels of production, will ultimately make it possible to properly manage the processes of intensification of scientific and technological progress, natural factors through their optimal combination and achieving not only a synergistic effect, but also the socio-economic efficiency of poultry production.

MATERIALS AND METHODS

Of particular importance in the production management system is the issue of criteria and indicators of socio-economic efficiency. When determining a system of indicators for control, analysis and assessment of the economic efficiency of poultry production, in the author’s opinion, it is necessary to take into account the principle of full reflection of the cause-and-effect relationships between costs, used production resources and all types of economic effect. This principle must especially be taken into account when assessing the effectiveness of such a complex industry as industrial poultry farming, where there are many not only workshops, but also sub-sectors and types of production. The system of performance indicators should be part of the created economic mechanism, as well as effective management, and guide managers at all levels and work teams of organizations to reduce production costs while increasing their volume and quality. The presented system of indicators of the efficiency of agricultural production meets the new requirements for assessing economic activity, carrying out analysis in the system of both operational and strategic management of poultry farming in the region, individual poultry farming organizations and their segments at any temporal and spatial level of the hierarchy. In relation to the management system of an economic entity, the concept of “organization” is one of the main components of the content of production management, that is, it is a management function, an objectively necessary type of management activity. Organization as a management function and a purposeful specific type of activity of management personnel, consisting of a set of specific types of labor, is objectively necessary, first of all, for the full and effective management of economic processes, including in poultry farming.

The shift in meat consumption from foodservice to home cooking that occurred during the COVID pandemic is expected to be short term and will revert to prior expenditure patterns as restrictions are lifted. In high income countries, however, where per capita consumption is already high, demand is anticipated to level off or trend lower given aging populations and greater dietary concerns that seek more diversity in protein sources. In lower income countries, both population and income growth will spur higher overall consumption, albeit from a much lower per capita base level. Recovery in meat consumption in the People's Republic of China (hereafter “China”), which fell in per capita terms by over 11% in 2020 from its historical peak in 2018, is projected to return to its longer-term trend by 2023, as the impact on domestic pig meat prices of African Swine Fever (ASF) abates. Per capita global meat consumption, once China pork consumption recovers, is expected to stabilize around 35.6 kg/year in rwe by 2031.

The long-term shift in meat toward consumption poultry continues to strengthen. In high-income countries, this trend is due to a rising preference for white meats that are more convenient to prepare, and which are perceived as a better food choice. In low- and middle-income countries, the upward trend is additionally due to the lower price of poultry compared to other meats. Globally, protein availability from poultry, pork, beef, and sheep meat is projected to grow 16%, 17%, 8%, and 16%, respectively, by 2031 (Figure 6.1) . Poultry meat is projected to constitute 47% of the protein consumed from meat sources, followed by pig, sheep and bovine.



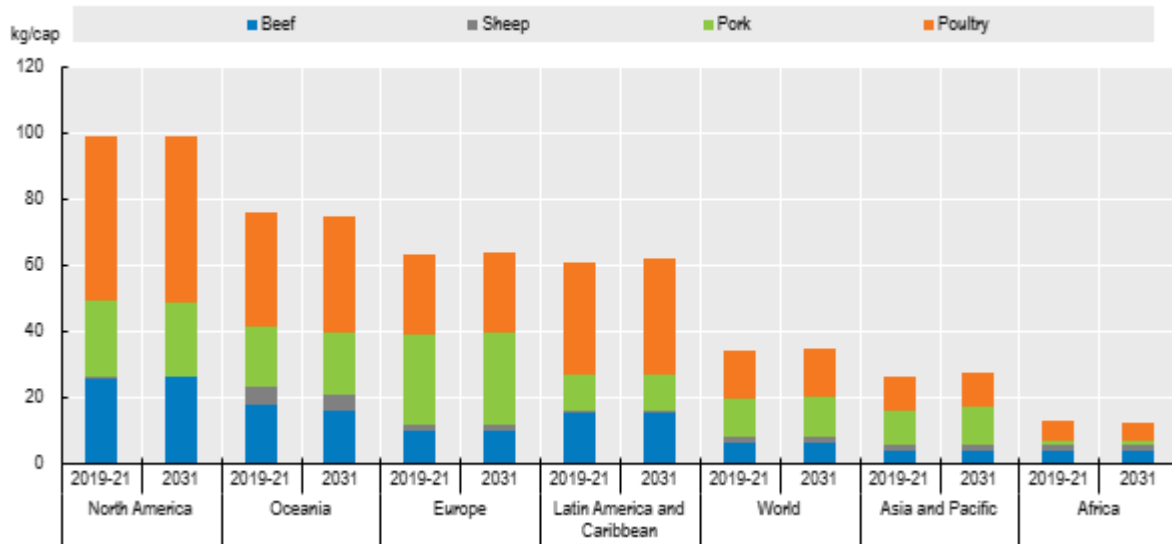
Note: The 38 individual countries and 11 regional aggregates in the baseline are classified into the four income groups according to their respective per-capita income in 2018. The applied thresholds are: low: < USD 1,550, lower-middle: < USD 3 895, upper-middle: < USD 13,000, high > USD 13,000.

Source: OECD/FAO (2022), “OECD-FAO Agricultural Outlook”, OECD Agricultural statistics (database), <https://doi.org/10.1787/agr-outl-data-en>

Fig. 1. Growth in meat production and per capita consumption on a protein basis, 2019-2021 to 2031



Research has found that the main motivations prompting consumers in higher income countries to shift towards a diet that excludes or reduces meat products and re-allocates among meat products (eg red vs white meat) are those relating to animal welfare and health. Consumer research has also examined attitudes and behavior towards meat consumption in relation to environmental concerns. The results show that the number of consumers willing to stop or significantly reduce meat consumption for environmental reasons or who have already changed their meat intake for environmental concerns still represent a small minority of global consumers, which is however of growing significance among young Europeans who are adopting environmentally motivated meat curtailment strategies.



Note: Per capita consumption is expressed in retail weight. Source: OECD/FAO (2022), “OECD-FAO Agricultural Outlook”, OECD Agricultural statistics (database), <https://doi.org/10.1787/agr-outl-data-en>

Fig. 2. Meat consumption per capita: Continued rise of poultry, pig meat and fall of beef

Global *sheep meat* consumption, a niche market in some countries and considered a premium component of diets in many others, is projected to increase to 18 Mt over the outlook period and to account for 5% of the additional meat consumed. Sheep meat consumption worldwide, on a per capita basis, is comparable in both developing and developed countries. In some Near Eastern and North African (NENA) countries, where sheep meat is traditionally consumed, per capita consumption is projected to continue its long-term decline despite increasing disposable income.

Table 1. Indicators assessments efficiency production products poultry farming

Are common indicators	Gross production products: a) meat, c; b) egg, things. Gross production products on 100 ha crops cereals crops: meat, c; egg, things; products, sum Product production increase relative to plan: meat, ts or V %; egg, things or V %; V) products, sum _ or V %. Production products V assessment at sales prices (or transfer prices) for 1 sum. costs, sum Productivity birds: A) average daily growth, G; b) egg production laying hens, PC. Relative cost savings for production, %. Profitability production products, %: A) meat; b) eggs.
Indicators use material resources	Capital productivity, sum Depreciation return, sum. Capital intensity, sum. Material efficiency, sum Material consumption, sum. Energy efficiency, sum. Energy intensity, sum. Material expenses on 1 sum gross output assessed at sales or transfer prices, sum. The coefficient of productive use of feed in poultry farming. Profitability use feed, %: A) at production meat; b) in the production of eggs. Feed consumption per 1 conventional head of poultry, c. feed. units
Indicators use labor resources	Gross production products per 1 employee: A) meat, c; b) egg, things; V) products, sum Performance labor V based on living labor costs, sum. Labor intensity production products, person-hour. productivity growth rate, %. Coefficient efficiency use of labor resources: A) V in general by poultry farming; b) By separate species production of products. Labor productivity based on total energy costs, MJ. Labor intensity production V calculated on the energy of the product, MJ.
Other	Level of targeted use of financial resources (credits, loans, government assistance, etc.), %.



usage indicators resources and financial results	The coefficient of use of retained earnings and other own sources to finance investments in non-current assets of poultry farming. Cost price products, sum: a) 1 quintal of meat; b) 1 000 PC. Eggs. Marginal income, sum: a) in the production of 1 quintal of meat; b) at production 1 000 PC. Eggs. Profit, sum: A) Total V poultry farming; b) from the sale of meat; V) from sales eggs. Coefficient energy efficiency production: A) 1 ts meat; b) 1 000 PC. eggs _
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The organization of management, according to the author, presupposes: understanding and use of fundamental principles, management methods, compliance with all requirements imposed on it in modern conditions; sufficiently complete application of scientific methods and methodological techniques of management to implement the prescribed functions and solve the tasks assigned to management is a strategic goal; skillful selection of the necessary forms and methods of management, so as not to lose sight of either the substantive or formal side of management; adequate application, use of management mechanisms, improvement of its forms (structural connections, composition of elements), etc. However, even an ideal organization of management in itself does not completely predetermine success in the management system: not only good organization of management is important, but also the skill of its application in a specific enterprise. Therefore, it is necessary to take into account the level of professional training of management personnel, be able to select and hire highly qualified specialists, develop and implement an optimal functional structure of management and its apparatus (linear-hierarchical; vertically - line-staff; combined - functional). In this case, one should take into account the legal form, organizational structure managing subject his species activities, the degree of centralization and decentralization of management, forms of organization of structural units, production, labor and its payment, etc.

When organizing management, it is important to correctly establish the sequence of inclusion of interrelated stages of the management system in the management process. It is important to rely on organizational management principles, legislative, regulatory, methodological and instructional materials. In addition, it is necessary to take into account or establish the most rational relationship between all structural and functional units with the management apparatus, as well as determine the volume and nature of information for making effective decisions (Fig. 1).

The practical implementation of the developed conceptual model of management organization will contribute to the dialectical unity of the effectiveness of the functioning of the form and content of the management system in practice, which will ultimately ensure an increase in the efficiency of poultry production on an industrial basis; strengthening all management functions and strengthening their relationships in the reproduction process; increasing the efficiency of information communication in the management system, integrating the activities of all economic services of the organization; providing feedback and direct connections in two main directions: vertically (up and down) across hierarchy levels; horizontal (at the same hierarchy level); improving the production management system that meets modern conditions of a market economy.

A set of organizational, methodological and technical techniques, carried out using certain procedures, constitutes the process of managing the production of poultry products. This process consists of organizational, technological And final stages. So, way, the management process or the process of its implementation in practice is a system that operates using material, labor and intellectual values. Therefore, this process must be rationally organized, that is, all elements of the system are ordered, brought into a single whole, function interconnectedly, and are functionally dependent. Hence we should talk about the scientific organization of the management process in poultry farms.

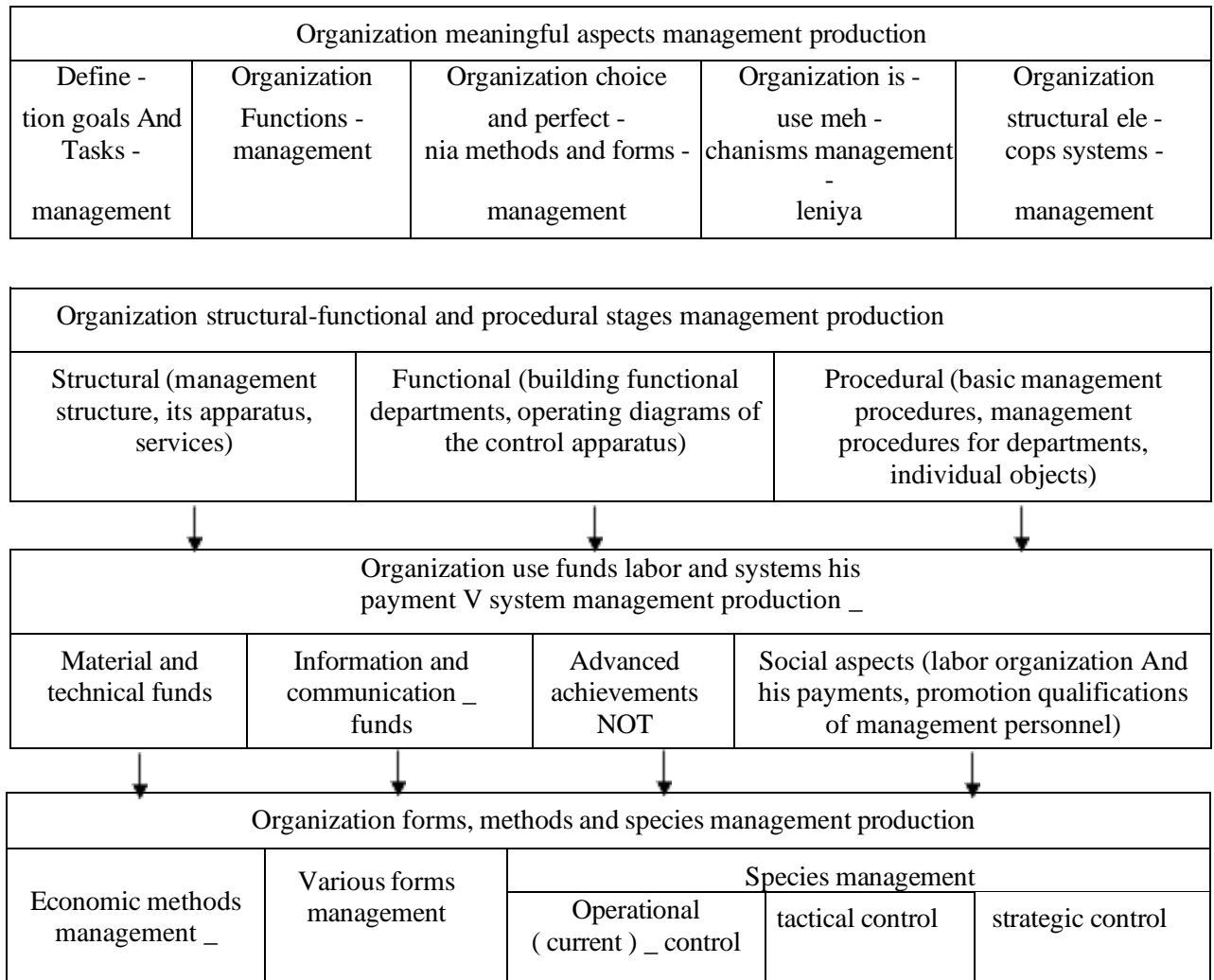


Fig. 3 . Conceptual model organizations systems management in poultry farming entities

For the effective functioning of the management process of a poultry organization, the following principles must be observed: the management process must be continuous; all types of management work must be carried out with clearly defined rhythm in certain time boundaries; all management employees must coordinate their activities with other functional departments and specialists of the organization; in the management process, strict specialization of management work and the most efficient use of information resources must be observed at production decisions. Evaluation efficiency process management in poultry farming organizations can be carried out according to the above indicators and performance criteria.

The poultry management system involves the use of innovative forms and methods that contribute to the principle of maximum efficiency and, on this basis, achieving the final planned economic result. The decisive role in ensuring economic efficiency and social performance is given to the effective use of economic management methods. The system of economic management methods is a variety of economic levers and incentives that effectively influence production. The combination of economic levers and incentives to influence production forms the complex concept of “economic management mechanism”. The economic mechanism of management in the poultry management system, according to the author, should include the following elements: planning; pricing; financing; lending; financial incentives; commercial settlement; economic calculation; budgeting to control the operational and tactical plans of the overall strategic plan; taxation system; system of insurance and creation of insurance reserves of raw materials, feed, inventory in case of uncertainty and risks; foreign economic activity, etc. (Fig. 2).

The initial requirement for the development of the system and elements of the economic mechanism must become accounting actions economic laws, internal and external factors, structure, goals and objectives of industrial poultry farming management. The study identifies priority activities and directions for their solution to create a modern economic management mechanism in poultry farming organizations. This mechanism makes it possible to successfully implement a set of strategies in the poultry management system. One of the main objectives of poultry management is to implement financial strategies.

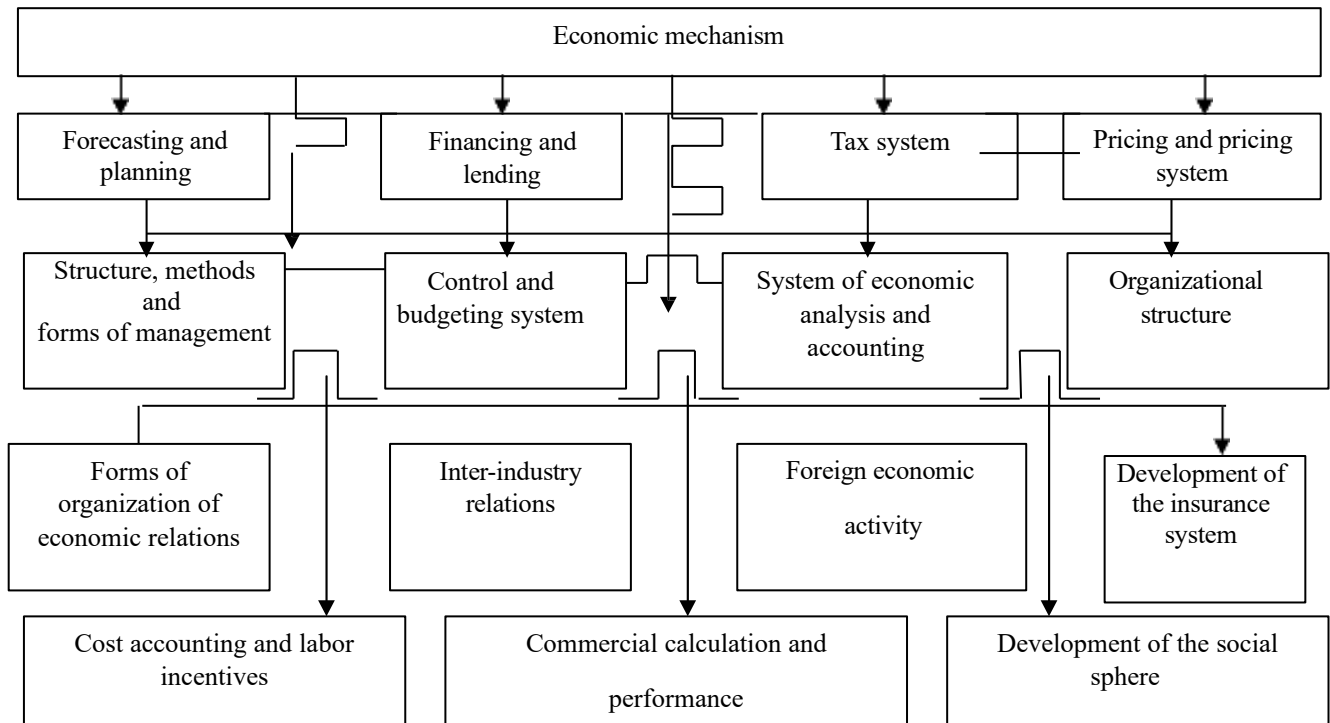


Fig. 4. Basic elements economic economic mechanism of a poultry farming organization

The basis for the development and implementation of these strategies should be state regulation of financial leverage on the efficiency of the entire management system. Of these, the main and permanent lever should be budget support for production efficiency poultry farming With purpose development state food security. Budgetary support, perhaps in the form of investment loans, subsidies and subventions. Government subsidies and cost compensation also play an important role in order to ensure the profitability of poultry farming organizations. The profitable work of these organizations is necessary not only for conducting an expanded production process, but also for the development of veterinary and hygienic measures to protect poultry from diseases and epidemics, including bird flu. According to the author's calculations, to ensure the principle of self-sufficiency in poultry farming, the average level of profitability from the sale of products must be at least 15%; self-financing – at least 20 – 25%; self-financing and investment activities - at least 30 - 40%.

The US struggled with the global avian influenza outbreak and had to cull over 40 million hens in 12 months. Similarly, the EU poultry sector saw a severe decline in production. In some EU countries like France, Italy, and Hungary, production decreased by 11%.

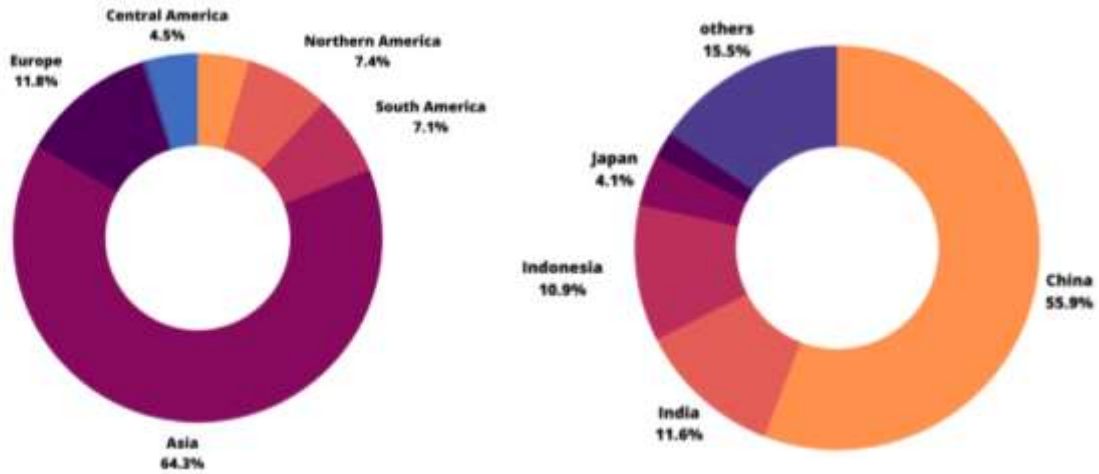


Fig. 4. Global Egg Production per Country

China produced about 603 billion eggs in 2022, an increase of 3% from the 586 billion eggs they produced in 2021. A report sent from the Chinese financial firm Mailyard Futures to the Global Times showed that China produced 31 million tons of eggs in 2022 [Global Times]. A steady increase compared to the 29.7 million tons of eggs they produced in 2021, despite the global egg shortage, which flared up in late 2022. Experts say this was the result of China's swift response and rapid measures they introduced to combat bird flu in its early stages. If you look at the top 10 egg-producing countries in the world in 2021, you can see how much China contributes to global egg production.

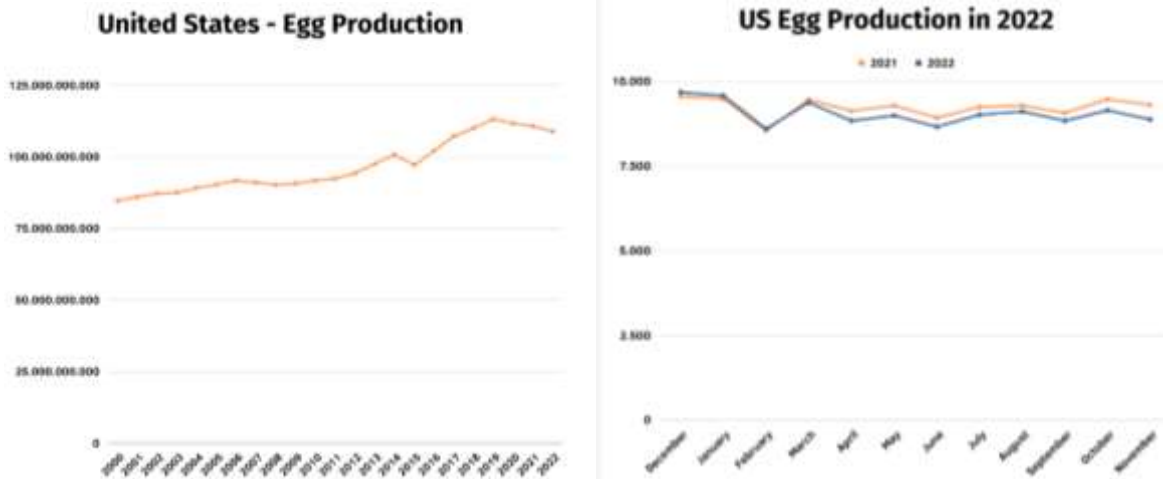


Fig. 5 . Evolution of egg production in the United States. In 2022, the US produced 108,885,099,000 eggs. At its peak in 2019, the United States produced 113,206,100,000 eggs. Source: FAO + data from the Economic Research Service of the US Department of Agriculture

CONCLUSIONS

Modern production management practice determines new requirements for a cost information system production and release of products. Therefore, the study examined in detail the issues of improving management accounting in poultry farming. Recommendations have been developed for identifying objects of cost accounting and planning; organizing analytical and synthetic accounting by combining production cost accounting methods with the direct costing system; classification and construction of a reasonable nomenclature for cost accounting and planning; formation of cost and internal management reporting for decision making.



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