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## ПРОБЛЕМИ ТА ПЕРСПЕКТИВИ РОЗВИТКУ ПТАХІВНИЦТВА В УКРАЇНІ

*У статті розглянуто науково-теоретичні засади та сучасний стан розвитку птахівництва і економічну ефективність виробництва його продукції в сільськогосподарських підприємствах. Досліджено проблеми та перспективи функціонування галузі. Проведено аналіз динаміки поголів'я птиці, виробництва продукції птахівництва за категоріями господарств в Україні. Обґрунтовано основні напрямки та практичні засади щодо підвищення рівня економічної ефективності птахівництва в Україні.*

**Ключові слова:** галузь тваринництва, птахівництво, поголів'я птиці, розвиток, економічна ефективність, інтенсифікація виробництва.

### 1. Introduction

Poultry farming provides population with dietary and high-calorie food. The main product of poultry farming – meat – nutritionally dominates the majority of food. Poultry farming – precocious livestock branch, is characterized by high mobility in unstable market conditions. Return of feed in birds is much higher than in pigs, cattle and sheep, and as a result – the cost of poultry meat is the lowest. This contributes to increasing the demand for poultry products, available to consumers with different income level.

The current state of Ukraine's economy is accompanied by severe general economic crisis. Under such social and economic conditions it is impossible to achieve the appropriate level of production efficiency, to maximize profits, to be a leader in a tough competition. Formation of industrial relations in the poultry farming requires the development of effective mechanisms and approaches which would allow increasing production efficiency, to create favorable investment conditions, ensure the competitiveness of products in the consumer market.

According to domestic and foreign experts, Ukrainian poultry farming will reach European level in a few years, although today the consumption of poultry meat in Ukraine is one of the lowest in Europe, because each Ukrainian consumes only 10–12 kg of chicken (Europeans consume around 25 kg per person). Therefore, Ukraine has great prospects for the development of this market because of the low price of the product and low cost of its production [1]. Taking into account the constant increase of competition on world markets of poultry products, the task of selecting the proper regulatory policy becomes particularly important, which should be aimed at protecting the domestic chicken producers.

According to the scientifically based norms the consumption of these products should be 13–21 kg of poultry meat per person per year, but consumption of poultry products in the country is still significantly lower. From a technological point of view and payback period of investments poultry contains great potential to improve the level of satisfaction of the needs of the population in

food. That is why the question of the organization of the market poultry of production enterprises, determining the economic efficiency of the production and consumption of chicken, studying the ways of organizing the agricultural sector appearance to the external market is very relevant.

### 2. Analysis of published data and problem outline

The problems of competitiveness support, the formation and functioning of agro-industrial products market were examined in scientific works of V. Y. Mesel-Veselyak [2], P. T. Sabluk [3], V. G. Andriyчук, V. V. Yurchyshyn. Certain contribution to the study of the domestic poultry market was made by M. I. Sakhatsky [1], B. A. Miller [4], V. I. Topiha [5], F. O. Yaroshenko [6], A. G. Shmorgun, R. M. Myniv and others.

A significant contribution to the question of improving the organization and intensification of production, improving the efficiency of poultry made such scholars as: V. P. Boroday [1], A. I. Verbovnikov, I. I. Ivko, V. D. Lukyanov, B. A. Melnik [4], Y. O. Ryabokon, M. F. Shklyar, F. O. Yaroshenko [6].

However, in the works of these and other authors [7–19] some important aspects associated with higher level of efficiency of poultry enterprises and taking into account regional peculiarities, justification of strategic options for the development of market conditions are not covered properly. In particular The main leverage need systematic studies on the performance of enterprises, improving the mechanisms and approaches to managing poultry enterprises, which would enable to create favorable conditions for the development and improve their efficiency. Proper attention was not paid to the comprehensive systematic study of the basic principles of formation of poultry enterprises of industrial type yet. There is no comprehensive methodology for determining the efficiency of poultry production, taking into account the specific characteristics of the industry within the interaction with the subjects of reproduction process. Therefore, a functional analysis of poultry farming trends development, with the help of which it is possible to identify the reserves of production

increase and receive profit of enterprises is an important and urgent task.

### 3. Object, purpose and task of the research

The object of research is the process of identifying the main causes and effects of negative impact on the poultry farming market reforms, the directions for its further development are considered.

The research aimed at identifying the features of the formation and development of the poultry farming and poultry efficiency of enterprises in Ukraine.

To achieve this goal the following tasks were solved:

- to assess the modern development of poultry farming in agricultural enterprises;
- to analyze the population supply with poultry products and level of prices on them;
- to identify the efficiency level of poultry industry enterprises, trends and causes of changes in key indicators that characterize it.

### 4. The results of the research of poultry farming and evaluation of poultry enterprises of Ukraine

**4.1. Development of poultry farming, problems and conditions of poultry enterprises functioning in Ukraine.** In the current economic conditions poultry farming in Ukraine and in the world is one of the world's major producers of important products that are marked with biological usefulness for the human and economic accessibility for most consumers. Poultry farming in the conditions of stiff competition with imported products has certain advantages, as evidenced by the annual increase in poultry production.

Ukraine's path to world economic space stakes on necessary improving the competitiveness of products and the formation of high-quality agricultural enterprises. Providing high economic efficiency of agricultural enterprises takes priority weight because the country's competitiveness in the global market is formed on this basis.

Functioning and development of poultry enterprises have the task to fill the domestic market with quality products, and provide access to European and world markets. The conquest of a niche in the market for individual enterprise, driving efficient business activities only possible on the basis of use of internal and external factors of competitiveness, compliance of scientifically reasonable costs of labor and means of production [1].

One of the characteristics of poultry development for years of economic transformation is moving production volumes in farms, accompanied by a decrease in poultry productivity, violation in technological and environmental requirements of maintenance, reducing the efficiency and competitiveness of poultry products on the market.

Industrial and economic activity of industrial poultry farms and household farms varies considerably, depending on the level of technology, organizational and economic factors.

Poultry farming functioning in countries with high level of this industry development is based on enterprises' own funds, and any financial subsidy from the state is absent. Unlike poultry farming pig and cattle meat constantly subsidizes from the budgets in many countries of the world. In the conditions of lack resources rapid revival of

poultry farming in our country can not only provide the improving of people's diet but also give an opportunity to increase the capacity for production without significant subsidies from the state [2].

Poultry farming develops intensively throughout Ukraine. The proximity and concentration of the urban population influence on its placement. Industry is developing towards the creation of large industrial complexes around major cities and industrial centers.

#### 4.2. Analysis of poultry farming and production and economic activity of poultry enterprises during 2000–2014.

Poultry farming in Ukraine in 2000–2014 was developing quite rapidly. In 2014 poultry stock in all categories of farms amounted to 218,4 million heads that in comparison with 2000 was higher on 73,2 % (Table 1) [4].

Table 1

Development of poultry farming in Ukraine

Year	Poultry stock, mln. heads	Meat production (in slaughter weight), ths. t
2000	126,1	193
2005	152,8	497
2006	162,0	589
2007	166,5	689
2008	169,3	794
2009	177,6	894
2010	191,4	953,5
2011	200,8	995,2
2012	214,1	1074,7
2013	230,3	1168,3
2014	218,4	1366,9

Due to the growth of poultry stock and its productivity, meat production in 2000–2014 increased by 73,2 %. In 2014 of all categories of farms produced 1366,9 thousand tons of poultry meat (in slaughter weight). The increase in poultry meat production is primarily due to increased demand from the population and the food industry. Poultry meat was the substitute for most consumers of meat, because in recent years there has been a significant decrease in supply of beef and pork. In addition, consumers prefer dietary poultry meat.

Dynamics of poultry stock and poultry production volumes indicate that enhance of the food market with poultry products cannot be done without the households development. Therefore, increasing the volume of poultry production is possible only by large specialized companies that are able to organize year-round production through acquisition of industrial stock, balanced feeding and providing technological requirements. Dynamics of poultry stock by categories of farms in Ukraine in 2000–2014 is presented in Table 2.

According to the data in Table 2, in all categories of farms poultry stock in 2014 has increased compared to 2000 by 57,7 %. Herewith, poultry stock in agricultural enterprises increased by 5 times, and in households decreased by 5 %. In 2000 in households were concentrated 78 % of poultry stock, and in 2014 – 45 %. Thus, reducing the poultry stock in Ukraine occurred only in households. As for the farm, they increased poultry stock by

106,7 ths. heads in 2000–2013. Growth of poultry stock is positive in poultry development and while increasing the poultry productivity provides the production capacity. After a long period of crisis, since 2000 the development of poultry farming is accompanied by annual growth of poultry meat production.

In 2014 the country produced 1652,4 thousand tons of poultry meat in live weight, which is 6,2 times more than in 2000 (Table 3). This is largely due to the fact that the production of meat products in agricultural enterprises increased almost 24,6 times. Companies created a strong food base provided the use of highly productive crosses, put into production advanced technologies. The positive development in the industry is that changing the ratio between poultry production farms and households.

If in 2000 agricultural enterprises produced 58,7 ths. tons (22,2 % of total production) of poultry meat, in 2014 – 1445,9 ths. tons, or 87,5 % of production in all categories of farms. Large specialized enterprises operate effectively on the basis of innovation and attracting investment resources. Chicken productivity increased significantly through the use of modern high-performance cross-foreign selection. At the same time it shows the development and stabilization of relations with companies specialized in feed mills. The impact of various factors is reflected in poultry production – both economic and technological.

Food production for the population – is the task of high priority of country food subcomplex. Intensive poultry production system promotes market with eggs and poultry meat. These products possess the proper place in the diet of our population. Solving the problems of poultry farming primarily depends on increasing its efficiency. The main factors that can affect the growth of the production of eggs and poultry meat include quality of poultry meat, the level of forage production, improving nutrition, the introduction of high technology and modern technology, specialization and concentration of production and the efficient management of the sector.

Scientific research and experience of leading companies suggest that the development of the poultry farming will be based on the formation of large industrial integration formations. They can provide effective work from a closed technological cycle scheme: maintenance parental stocks of multiplication, feed production and preparation of feed mixtures on their own feed mills, meat and egg production, its processing, and implementation of products in its own retail network. In this case, the company has a closed production cycle and usually reaches high end results of production activities. The producer is not dependent on the processing trade enterprises and monopolies create a best market economy through the free choice of markets, timely range changes according to the needs of customers, using seasonal prices. It will ensure to provide an offer and satisfy consumer demand.

Poultry farming that is on an industrial basis is the most intensive livestock industry. It requires a high level of material and technical base, linear hybrid bird species of specialized breeds and immediate and full demands satisfaction of high-quality feed using high-grade animal feed and protein-vitamin supplements, minerals, amino acids, antibiotics for all kinds and age-sex groups of birds. Thus, among the factors that characterize and determine the level of industry efficiency, except of the genetic potential of birds, is the cost of energy resources and production equipment. However, feed has the greatest impact on economic efficiency. It occupies 60–80 % in the cost of eggs and meat.

In the system of efficiency index exists a stable dependence: the price of feed, poultry productivity, and as a result – profit and sales price. These factors dramatically evident and influenced the level of the industry efficiency. Winning the competition requires producers to know thoroughly the future level of poultry productivity for profit at a certain cost of feed and price realization. However, analysis of the efficiency of poultry industry indicates that much larger number of factors that affect the profitability and general efficiency.

Table 2

Dynamics of poultry stock by categories of farms in Ukraine\*

Categories of farms	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2014 in % till 2000
All categories of farms	126,1	152,8	162,0	166,5	169,3	177,6	191,4	200,8	214,1	230,3	218,4	173
Agricultural enterprises	25,4	66,6	72,2	80,1	88,0	95,2	100,4	110,6	105,7	117,9	132,1	520
Specific weight, %	20	44	45	48	52	54	53	55	49	51	61	x
Population households	98,3	102,2	95,4	94,3	89,2	89,6	91,1	93,3	95,0	96,2	98,2	100
Specific weight, %	78	67	59	57	53	51	48	47	44	42	45	x

Note: \* — mln heads at the beginning of year.

Table 3

Poultry production by categories of farms in Ukraine

Categories of farms	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2014 in % till 2000	2014 in % till 2005
Production of poultry meat (in live weight), ths. tons													
All categories of farms	264,9	671,6	807,5	917,8	1055,1	1195,7	1278,8	1316,0	1414,0	1597,0	1652,4	624	246
including agricultural enterprises	58,7	462,9	582,6	723,2	856,2	966,2	1047,2	1142,4	1268,2	1356,4	1445,9	2463	312
Specific weight, %	22	69	72	79	81	81	82	87	90	85	88	x	x

Production cost of 1 centner of poultry growth in 2014 compared to 2005 increased by 2,5 times and amounted to 1574,65 hrn. In the structure of the cost on poultry meat production in 2014 direct material costs accounted for 80 %, including feeds – 60 %, the direct labor costs – 5 %, other direct costs and overhead – 13 %. Average selling price of 1 centner of live weight poultry over the period increased 3 times and largely depends on the sale channels. The main sales channels of poultry meat are the realization on the market through their own shops and stalls (5 %), processing enterprise (8 %). Most of the birds are sold in other channels (87 %), i. e. commercial entities, companies engaged in wholesale and retail of poultry meat. If in 2005 meat production was profitable, in 2014 in response to increasing cost of production the production was unprofitable (–65 hrn). The level of unprofitability amounted – 4 %. Thus, we can conclude that the measures to reduce the cost of meat production and efficiency of the industry should begin to reduce the cost of feeds and improving their quality.

Increased industry profitability depends on energy resources conserve due to the introduction of advanced technologies based on innovation. The state, in the interest of economy, should create conditions for using economic instruments that would enable agricultural businesses to use innovative technologies in production. In market conditions to improve the profitability of production, reducing the risk of their activities, using their own fullest potential businesses are constantly searching for new strategic activities.

World experience shows that the best results provide integrated systems with maximum completeness production, supporting the industrial brand on the market. Agro-industrial integration plays a special role involving financial institutions, agricultural producers, processing enterprises and trade enterprises [3]. One of the important factors of poultry farming increase is the use of science achievements in selection, which becomes a part of the field specialization. Under these circumstances, producers will have less eager to settle for cheaper, but less productive poultry because it is proved that the loss of low condition birds is ten times higher than the savings on the purchase of such stock.

Thus, an important direction is the use of world achievements in breeding on the basis of establishing effective relationships with well-known breeding centers, joint ventures, acquisition of productive poultry stock more resistant to diseases. Therefore, to improve the efficiency of domestic poultry it is important to use domestic poultry crosses adapted to the detention conditions of [7, 8].

In market terms, each company independently implements the quality policy, draws every department in this process. The quality control of feeds, premixes, vitamins, forming qualitative indicators of the finished product is very important in poultry farming. High quality of poultry products provides competitive advantages for producers and for consumers it is the main selection criterion. However, there is a need for standardization of consumer goods, without which domestic production cannot be realized on foreign markets.

Taking into account the crucial role of poultry farming as intense and dynamic branch of agricultural sector, that allows in a short time to increase significantly production of diet, high-calorie food products – eggs and poultry

meat – to meet the needs of the domestic food market, acquire special relevance of applied research efficiency of regional resource potential use of this industry, including the steppe zone, where the relevant provisions and opportunities for the revival and expansion of poultry farming on an industrial basis.

Due to financial neediness of enterprises of poultry complex, intersectoral disparity of prices, inflation, poultry farming became unreceptive to innovation. Most companies do not have enough funds to implement innovative technologies and intensive software on their basis of expanded reproduction in poultry farming.

Enterprises form a system of real economic interest and demand for innovation. Therefore, innovation is a priority in the poultry farming: the creation and implementation of new high-production breeds and crosses of poultry; development and application of new energy saving technologies of production and processing; development and implementation of technologies in the production process environmentally friendly products; creation of economic model of enterprise integration of poultry complex; efficient formation of economic systems, their information security; research technologies that enhance the export capability of the industry.

## **5. Discussion the research results of poultry farming development and evaluation of poultry enterprises in Ukraine**

The study evaluated the development of modern poultry farming and formulated the basic principles to stabilize poultry production by improving its efficiency. Scientific and practical conclusions may be used in the formation of regional policy in the poultry industry and to improve the support system for producers of poultry meat and eggs by state and territorial government sector.

The formation of domestic poultry farming and its transition to an industrial basis is primarily due to the natural combination of biological, scientific, technical, organizational and economic preconditions under increasing influence of social and demographic and ecological and geographical factors. In the development of modern industrial poultry farming Ukraine revealed two consistent trends – decline in production (from 1990 to the mid 90-ies) and growth in the subsequent period. Among the most significant problems hindering progressive development of the sector are: high energy intensity of production, insufficient competitiveness of domestic poultry production, unstable operation of large poultry farms, obsolete technology and equipment, the price imbalance of poultry products and means of production, lack of own funds for expanded reproduction, unprofitability and bankruptcy of many poultry enterprises. The modern poultry industry of Ukraine, despite the numerous problems generally develops steadily and progressively.

In terms of significant energy resources limitation and the need to improve the competitiveness of poultry products it is necessary to use new approaches to the development of the industry to meet consumer demand on the domestic market and in view of the world market. That driving force that can ensure reduction of energy intensity of the industry and gain competitive advantages of the market is innovation and investment trend of poultry farming in Ukraine. The important direction of stabilizing and



improving the economic efficiency of poultry is a further development of the process of intensification of production, which made the introduction of the production of scientific and technological advances in order to increase production of eggs and poultry meat, increase productivity and reduce unit costs.

## 6. Conclusion

As a result of research:

- generalized theoretical and methodological foundations of poultry products efficiency;
- identified the features of the organizational and economic mechanism of poultry farming functioning in market conditions;
- estimated the modern development of poultry farming in agricultural farms;
- analyzed the population supply with poultry products and price level on it;
- detected the level of efficiency of poultry industry enterprises, trends and causes of changes in key indicators that characterize it;
- developed the directions optimize costs and increase profitability of the industry for the future.

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## ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ РАЗВИТИЯ ПТИЦЕВОДСТВА В УКРАИНЕ

В статье рассмотрены научно-теоретические основы и современное состояние развития птицеводства и экономическую эффективность производства его продукции в сельскохозяйственных предприятиях. Исследованы проблемы и перспективы функционирования отрасли. Проведен анализ динамики поголовья птицы, производства продукции птицеводства по категориям хозяйств в Украине. Обоснованы основные направления и практические основы по повышению уровня экономической эффективности птицеводства в Украине.

**Ключевые слова:** отрасль животноводства, птицеводство, поголовье птицы, развитие, экономическая эффективность, интенсификация производства.

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