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Import substitution of breeding product as a direction of increasing the economic efficiency of poultry enterprises

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Abstract. The most important condition for increasing the economic viability of the economic entities of the industry is the presence of a competitive domestic breeding base. Analytics showed that at the present time there has been a significant weakening of it, which clearly demonstrates such tendencies as a reduction in the number of breeding farms and, above all, unitary breeding poultry farms, as well as a high dependence on the import of breeding material. The latter circumstance has led to an increase in the cost of both breeding and marketable products, therefore, a decrease in profit margins and the level of profitability. At the same time, an increase in the concentration of the original genetic material among individual manufacturers led to a restriction in the number of crosses used, a decrease in competition in the market for breeding products, and the choice of quality breeding material. The study of the economic viability of poultry enterprises from the perspective of the state of the domestic breeding base, taking into account the development trends of breeding companies in the world, has enabled to identify the fundamental directions for solving the problem under discussion. These include the formation of a competitive domestic breeding base; reduced imports of pedigree products; availability of methodological tools for assessing the genetic potential of poultry; increased investment support from the state and private entrepreneurs; ensuring the availability of credit resources; the introduction of innovative developments that contribute to breeding progress aimed at creating a competitive domestic poultry.

1. Introduction

The functioning of the poultry industry is most effective in relation to the development of other sub-sectors of the livestock complex. Thus, the dynamics of the production of eggs and poultry meat over the five-year period (2012-2018) is characterized by a steady trend of their growth (eggs - 6.6%, poultry meat - 36.9%). In the structure of the total meat production of all types of livestock and poultry, the percentage of the latter is at the level of 48%. This trend is expected to continue in the short term, namely, in 2020 it is planned to produce 45.5 billion eggs and 5,200 kt of meat in the slaughter mass.

The positive dynamics of increasing the volume of eggs and poultry meat production and expanding the range of these types of products led to a change in the dynamics of imports in the direction of reducing its size (2018 compared to 2016: eggs - by 11.5%, poultry meat - by 9.3%) and growth exports for the same period (eggs - 2.4 times, poultry meat - by 60.5%).



At the same time, industry analyst demonstrates the differentiation of poultry enterprises in terms of efficiency. The difference in the level of profitability of the analyzed economic entities is due to the interdependence of such dominant factors as inflation, exchange rates, declining level of solvency of the population, increase in debt load per ruble of equity, decrease in security of liabilities with own property, increase in stock ration in current assets, disparity of prices for consumed resources and poultry products sold, the imbalance of investment funds, which are mainly concentrated in large manufacturers, high dependence on imports of breeding products, as well as imperfect mechanisms of state regulation of the effective functioning of the poultry product subcomplex.

A central factor of today is the increase in the input intensity of the products produced in the industry due to the increase in the cost of imported breeding material, namely, hatching eggs and live poultry (young). During the study period (2012-2016) the number of unprofitable breeding farms increased, their percentage in the total structure of the liquidated commercial unitary poultry enterprises was 80%. In times of 10.5% of the liquidated poultry farms, the level of these processes in breeding farms in 2016 was 33.3%. The scale of these structural changes is more clearly demonstrated by the analyst of the relevant data from 2008 to 2016, according to which the economic entities of the industry engaged in the reproduction of breeding birds decreased by a factor of 5.2 [1].

In this regard, the most important condition for ensuring the needs of commodity farms in a highly productive poultry industry is the implementation of directions for the formation of a competitive base of domestic pedigree poultry farming. Simultaneously used breeding resources in the industry are different in their quality characteristics and pricing strategy. Moreover, the shortage of breeding resources in the country allows producers to sell low-quality breeding products. This situation takes place in reproductive farms of the I. and II. order.

The adequacy of management decisions regarding the acquisition of breeding material is possible with the availability of methodological tools for assessing the genetic potential of agricultural poultry of foreign and domestic breeding. This will expand the capabilities of manufacturers of relevant products in the selection of the genetic material of a biological object; increase the responsibility of the parties for the quality of the supplied resources and their effective use.

These circumstances actualize the need for research into ways to increase the economic viability of poultry enterprises, the central vector of which at present is to provide them with high-quality breeding material with the ability to assess its genetic potential.

Among the studies on the functioning of the poultry industry, it is necessary to include a number of publications by national and foreign authors [2, 3, 4, 5, 6, 7]. Analysis of the industry development from the perspective of its sustainable contribution to ensuring the food security of the Russian Federation is emphasized in papers [8, 9]. However, the study of the available scientific and practical material on the issues under consideration indicates the insufficiency of the relevant analytical information.

The proposed hypothesis of the paper consists in arguing the necessity and interdependence of the presence of a competitive domestic breeding base in the industry and the economic viability of its business entities with the ability of the latter to evaluate the acquired breeding resources from domestic and foreign producers from the standpoint of their genetic potential.

The aim of the study is to develop methodological tools for assessing the genetic potential of poultry as the core direction of increasing the economic viability of poultry enterprises. To achieve the above goal, the study analyzed the economic viability of the economic entities of the industry, its breeding base, identified factors reducing the efficiency of their functioning, and identified problem areas in the production, use of breeding material, with the possibility of evaluating its genetic potential.

2. Methods

As a methodological basis of the study, the method of dialectical research, a systematic approach to the study of economic phenomena were used. Depending on the specific nature of the tasks, the methods of comparative economic analysis, methods of analysis and synthesis, methods of economic

and statistical analysis, the method of expert assessments, methods of groupings and graphical interpretation were used. The complex of used research methods allowed revealing the causal relationships of the economic viability of poultry-farming enterprises and the evaluation of breeding resources from the standpoint of their genetic potential.

Objects of study are poultry enterprises. The main type of their activity is breeding poultry.

3. Research results

In the process of research based on financial statements (from 2012 to 2016), an analysis of 850 commercial corporate poultry organizations (hereinafter CCPO) was carried out. The studied period is characterized by a negative dynamic of their number.

In 2016, the liquidated CCPO accounted for 19.6% of their total number. At the same time, 10.2% of CCPO are in the process of liquidation.

As part of these changes, their economic viability was examined, which was considered in terms of financial performance and net asset value. 42.2% of the total number of CCPO has a loss, while the remaining 57.8% have a small profit margin.

Moreover, in almost 90% of these organizations, the level of return on assets was significantly lower than 20%. Focusing on the average interest rate on short-term loans (16-19%), we can say that there is no positive effect of financial leverage, which to a certain extent led to the formation of the total debt of insolvent CCPO in 2014 in the amount of 29 billion rubles, exceeding the level 2012 4 times [10]. Analytics CCPO according to the criterion of "net asset value" indicates that more than 39% of enterprises were classified as economically insolvent [11].

As part of this study, an emphasis was placed on the need to detail a similar study of commercial unitary poultry-farming organizations (hereinafter CUPO), whose percentage in 2016 was 1.6% of the total number of industry subjects. According to the results of the corresponding analytics, it was revealed that the percentage of inactive CUPO for the period from 2012 to 2016 of their total number was at the level of 21.7%.

The situation is aggravated by the tendency to increase among the existing CUPO that are in the liquidation stage (42.9%).

The financial sustainability of these economic entities of the industry has decreased, since the average net loss per organization during the period under review increased by 20.2%, which determined the negative value of the "net asset value" criterion (-24.5%).

Moreover, the process of their reduction is associated primarily with their actual liquidation. The data on the outlined study for the first quarter of 2017 demonstrate a tendency, the essence of which is manifested in an increase in the number of CUPO that are under liquidation (33.3% of the existing CUPO in 2016). The problematic nature of this situation was that of the remaining part of the CUPO, most of them practically did not conduct business.

The driver of strengthening these processes in relation to the CUPO was their mass privatization, which led to the minimization of state support for the domestic breeding base. At the same time, a significant part of the breeding farms, as a result of privatization, shifted to the production of marketable eggs and poultry meat, which ultimately predetermined an increase in dependence on the import of breeding products.

In 2016, the decrease in the imports of hatching eggs and young stock of the final hybrid of meat and egg chicken crosses (by 6.24%) is due to the acquisition of stocks of ancestral and parental forms on the basis of organizations operating in the Russian Federation. Through the acquisition of the ancestral and parental forms of foreign breeding crosses, these herds are completed, the share of which in the production of breeding products for the poultry breeding in Russia is more than 90%, and 7-8% is imported.

The value of total imports for the study period amounted to 58.3 billion rubles, which had a significant impact on increasing production costs, reducing solvency and economic viability of industry subjects [1, 12].

The solution to the problem of providing poultry farms with breeding material consists primarily in increasing the amount of funding by the state and private entrepreneurs of breeding centers, breeding factories and the first and the second order reproducers. Priorities so far on this issue are shifted in favor of commodity farms, whose financial support is 600 times higher than that of farms engaged in the reproduction of breeding poultry.

Together with the Ministry of Agriculture and the Federal Science Center "VNITIP" of the Russian Academy of Sciences, a state program was developed for the formation of a competitive base for domestic breeding poultry farming until 2025.

It systematizes the current state and development of the tribal base, and the needs for the implementation of the State Program until 2025. By 2025, it is planned to significantly increase the percentage of the original breeding lines in the meat industry. It should be noted that, at present, the share of own-breeding poultry in meat production is less than 1%, and in eggs about 2% (Figure 1.2).

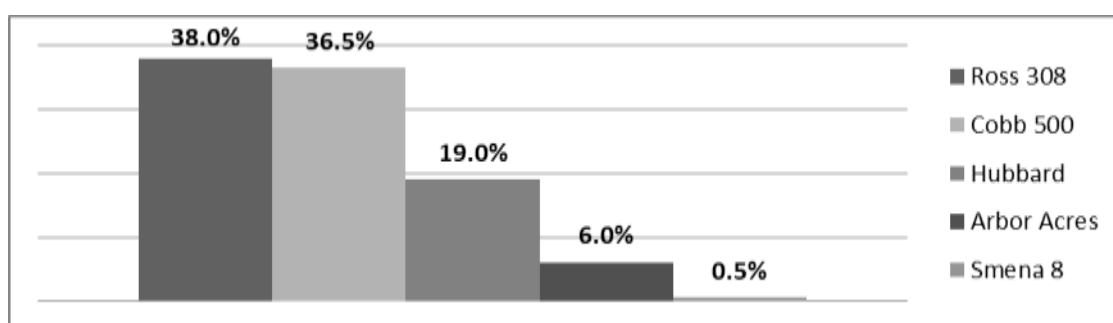


Figure 1. The use of meat crosses in 2018, %.

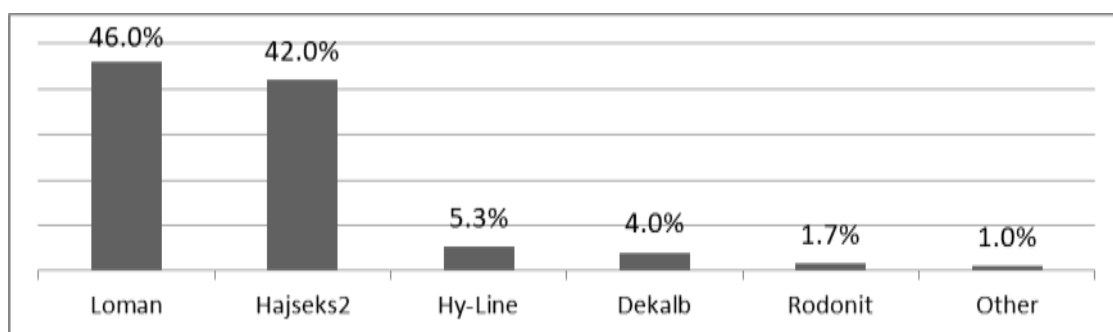


Figure 2. The use of egg crosses in 2018, %.

These data confirm the dependence of the industry on the import of breeding products. At the same time, the number of used crosses is limited. This is due to the fact that over the past 15–20 years, the number of breeding companies in egg poultry farming in the world has decreased from 14–16 firms to 3–4, and in meat poultry farming from 10–12 to 2–3. At the same time, the concentration trend of the original genetic material continues to increase with individual manufacturers. At present, in the Russian Federation, by analogy with world production, the bird of 3 foreign companies is used for 93 - 95%. In the poultry meat industry, poultry of two world firms (Cobb, Aviagen) is used [13].

In addition, the majority of domestic producers of commodity products, with such a limited choice of initial breeding material, are constantly in search of more productive birds. Often, with regularity in the 3rd year they change the cross of the farmed bird, others, without changing the cross, prefer the bird coming from another reproduction enterprise of the I. or II. order.

At the same time, hatching eggs coming from different reproductive farms or breeding young animals of the same cross often differ significantly in terms of the economic value of poultry. Differences in egg production (egg crosses) range from 7 to 15%, and in meat crosses, the live weight of broiler chickens varies from 5 to 12.5%. At the same time, there are significant differences in the safety of the birds.

On the basis of the above, the manifestation of the bird's genetic potential largely depends not only on the initial breeding material of the breeding cross, but also on the culture of reproduction, raising and keeping of the bird in the ancestral and parental flocks.

Thus, in order to increase objectivity when choosing farmed poultry farms need to assess its genetic potential.

4. Conclusion

In current context, the main problem is to ensure the economic viability of business entities. This situation is largely predetermined by the lack of competitiveness of the domestic breeding base and, as a result, the growing dependence of the producers of breeding and marketable products on the import of the relevant product. Today, the percentage of own-breeding poultry in meat poultry farming is 1%, and in egg production - 2%. There is a clear tendency to reduce the number of breeding companies in the food industry, which leads to the concentration of the original genetic material from individual producers and reducing competition in this market.

The limited initial breeding material often necessitates a change in cross of breeding birds. Hatching eggs or breeding youngsters from the same cross that come from different reproductive farms at the same time can vary significantly in terms of their economically beneficial indicators.

Taking together all factors affecting the economic viability of poultry enterprises, great importance is attached to the creation of a domestic breeding base and appropriate tools for assessing the genetic potential of poultry.

The negative trends of reducing the number of corporate commercial poultry enterprises for the researched period, as well as the factors shaping this pattern are revealed. The main reason for this situation is their unprofitability, and, above all, this is typical for breeding farms, including commercial unitary breeding poultry farms.

Currently, there are preconditions for changing this situation, since a state program is being developed for the formation of a competitive base for domestic poultry farming until 2025, which provides for ensuring the production of breeding products from meat chicken crosses of domestic breeding at 15% for the projected period (2025).

The implementation of tasks for the modernization of the domestic breeding base is largely predetermined by the amount of funding and the availability of credit resources. At the same time, in order to increase the economic viability of the analyzed economic entities of the industry, as well as to promote the breeding products they produce; it is recommended to subsidize consumers of domestic breeding products in the amount of 10-15% of the cost of purchased breeding material. At the same time, commercial unitary breeding poultry-farming organizations should act as a mechanism for ensuring the sustainable reproduction of breeding products with appropriate amounts of funding.

An important aspect of the stability of the tribal sector of Russia is the availability of a theoretical platform for its evaluation by the parties involved. As such a mechanism, methodological tools for assessing the genetic potential of a bird are proposed, which enable to choose breeding material from the standpoint of its economic viability.

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