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Market potential of breeding and commercial products in poultry farming

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Market potential of breeding and commercial products in poultry farming

Y S Roiter¹, N A Eremeeva² and L M Roiter¹

¹Federal Scientific Center All-Russian Research and Technological Poultry Institute of Russian Academy of Sciences, Sergiev Posad, Russia;

²Russian State Agrarian University - Moscow Timiryazev Agricultural Academy, Moscow, Russia

E-mail: department.economy.vnitip@yandex.ru

Abstract. The article deals with the theoretical aspects of the market potential for the production of breeding and commercial poultry farming products. The different points of view on this issue are analyzed and the characteristic of the conceptual terms of enterprise and products competitiveness is given. Integrating the research results, the concept of the market potential of poultry products is proposed. At the same time, a classification of market potential by its types and subspecies (industry, enterprise, products) is developed. The combination of these theoretical developments allowed designing the models of market potential for the main, related products, products of deep processing and by-products that have an applied nature.

1. Introduction

The results of the functioning of an economic entity depend on the internal and external factors, which are formed under the influence of the market environment characterized by a high degree of uncertainty.

In this regard, the emphasis shifted towards the study of the market potential of the enterprise, in particular the poultry industry, the effective implementation of which is the basis for improving their competitiveness and economic viability. This is what will allow the poultry industry not only to maintain its leading position relative to other sub-sectors of livestock farming industry, but also to increase its quantitative and qualitative export potential.

Currently, the market of poultry products has proved to be one of the most dynamically developing. According to the data on the implementation of the national project and the governmental program for the development of agriculture, the increase in the production of eggs and poultry meat for the period from 2006 to 2018, respectively, amounted to 8.1 billion pieces and 3,611 thousand tons of slaughter weight.

The positive dynamics will continue in the future. So, by 2024, egg production will amount to 46.1 billion pieces, and poultry meat to 5,550 thousand tons of slaughter weight.

The trend of increasing export positions for these types of products (2018 by 2017) is characterized by 30.2% for eggs and 22.2% for poultry meat.

At the same time, since 2015, the market was formed under the influence of the main determining factors: a decrease in the purchasing power of the population with the growth of product offerings and the cost of resources used, which predetermined a decrease in profitability in 2018 compared to 2015 both in egg and poultry meat, by almost 10%. The analysis of the main production, technical, economic



and financial indicators shows the differentiation of poultry enterprises both in terms of economic viability and the effective use of the market potential at their disposal.

It should be noted that the economic category "market potential" has not received proper, adequate 'recognition of its practices due to the lack of essential characteristics and methodological basis of this concept in relation to the poultry industry.

Therefore, the study of issues that comprehensively affect the market potential is a priority area of research in the poultry industry, determining its relevance.

2. Research results

In the process of research, different points on the concept of market potential are analyzed.

The differentiation of scientific publications relating the concept of market potential allowed to state that this category is interpreted differently by different authors, despite a certain semantic load.

As for the market potential of the products, there are no theoretical developments.

R V Marushkov [1] in the framework of economic potential focuses on the importance of marketing potential.

V P Baranchev and S G Strizhov [2] shift the priorities by the market potential assessment to the internal organizational factors. This is not quite true relating to the market factors, which are based primarily on consumer expectations, competitiveness, consumer preferences and others. E P Goloubkov [3] at the same time identifies the concepts of market potential and potential of market, giving a special status to the marketing component.

Such authors as V L Khanzhina and N A Atkina [4] apply the resource-based approach to the concept of "market potential". Other authors put in a direct proportional dependence the market potential, customer needs and a significant impact on the effectiveness of such a combination of external factors [5].

G S Merzlikina and T A Smelova [6] identify the concepts of the market potential of the enterprise and the market potential of the product.

There is also a shift in the essential characteristics of market potential and its competitiveness in the scientific literature [7].

In general, the above interpretations of the market potential concept differ slightly. They only complement each other in the development of the conceptual terms of this multifaceted economic category.

In view of the lack of concept "market potential of products", the interpretation of the economic category "competitiveness of products" was taken as an equivalent in the corresponding study of the scientific community views on this issue.

Most authors consider competitiveness as a two-dimensional model of the ratio of quality and cost characteristics, without taking into account other factors of market supply and demand. The analysis of the economic concept "competitiveness" also shows the identity of "enterprise competitiveness" and "product competitiveness".

In our opinion, "enterprise competitiveness" is an aggregated concept, the basic basis of which is the competitiveness of products and the competitive capabilities of the enterprise. Taking into account the logic of interpretation of the economic concept "product competitiveness", this equivalence was drawn in relation to the interpretation of the market potential of products.

Subsequently, the semantic characteristics of the economic concepts "market potential of products" and "competitiveness of products" were integrated in order to substantiate and correctly interpret the concept of "market potential of products".

At the first stage of the theoretical study, the formulation of the market potential of poultry products was given, the essence of which is as follows: the market potential of poultry products is the maximum possible capacity of the target markets, formed on the basis of the law of decreasing marginal utility and consumer choice theory.

The proposed interpretation of the "market potential of poultry products" was the basic basis for expanding research from the standpoint of the classification of market potential by its types and

subspecies. To implement this task, the existing theories are grouped by these types and subspecies revealing the advantages and disadvantages of these definitions.

The author's classification of types and subspecies of market potential is as follows:

1. Market potential of the industry. According to the criterion of maximum possible capacity of satisfied needs:

- market potential of the industry, calculated by the volume of absolute needs (rational, medical consumption standards);
- market potential of the industry, calculated by the volume of relative, solvent needs (according to the maximum possible demand, based on indicators of economic availability of food to the population – cash income, consumer prices);
- market potential of the industry, calculated on the basis of the current share of domestic producers in the total demand for the products of the industry.

2. Market potential of the enterprise. According to the criterion of the maximum possible capacity of demand satisfied by the enterprise in the total demand capacity (sales in the industry):

- market potential of the enterprise, calculated on the basis of the current share of the enterprise in the total demand for the products of the industry (in sales);
- market potential of the enterprise what is maximum possible volume of sales, calculated on the basis of the maximum production capacity of the enterprise in the market activities implementation;
- market potential of the enterprise, calculated on the basis of the current share of the enterprise in the total demand for the industry products (in sales), as well as the production capabilities (including enterprise competitiveness).

The theoretical interpretation of market potential of products relating to the poultry industry and the author's classification of market potential by species and subspecies were the basis for the development of an appropriate conceptual model.

By developing this model, the life cycle of production was emphasized, taking into account the hierarchy of the sectoral structure of poultry subjects. The starting point for this model development was the generally accepted scheme of the four-line cross on types of poultry meat and egg [8].

The possible market potential of poultry products produced by the industry subjects, which can be implemented in the target markets is presented fragmentary in the egg product as in figure 1.

According to the presented scheme of the conceptual model, the market potential of poultry products includes products obtained directly from the biological object in the form of live bird, hatching eggs, meat and commercial eggs, as well as related and by-products. The whole range of poultry products is considered in the context of two blocks: breeding and commercial products in accordance with the target orientation of each production subject of the industry.

Based on selection process knowledge, we detail the information field for developing this conceptual model.

The breeding and genetic center forms a breeding group of birds, which consists of baselines and multipliers.

In most cases, the main products of baselines are often not market potential for direct use.

From this livestock 10-15% remains for own reproduction, and the rest of the livestock is sold to population and the egg producer.

The related products of this group are poultry not used for breeding purposes, as well as adult poultry after the reproductive period, slaughtered for poultry meat and processed products.

As the main product of the group of line multipliers is the formation of the ancestral flock for transfer or sale to the first-order reproducer.

Related products are non-standard chickens and all the hens of the paternal lines as well as of maternal and paternal forms. All rejected poultry population in egg poultry farming goes to the production of meat and bone meal.

The breeding products transmitted to the first-order reproducer creates a market potential in the form of the parent forms for the second-order reproducer. This type of product is one of the main.

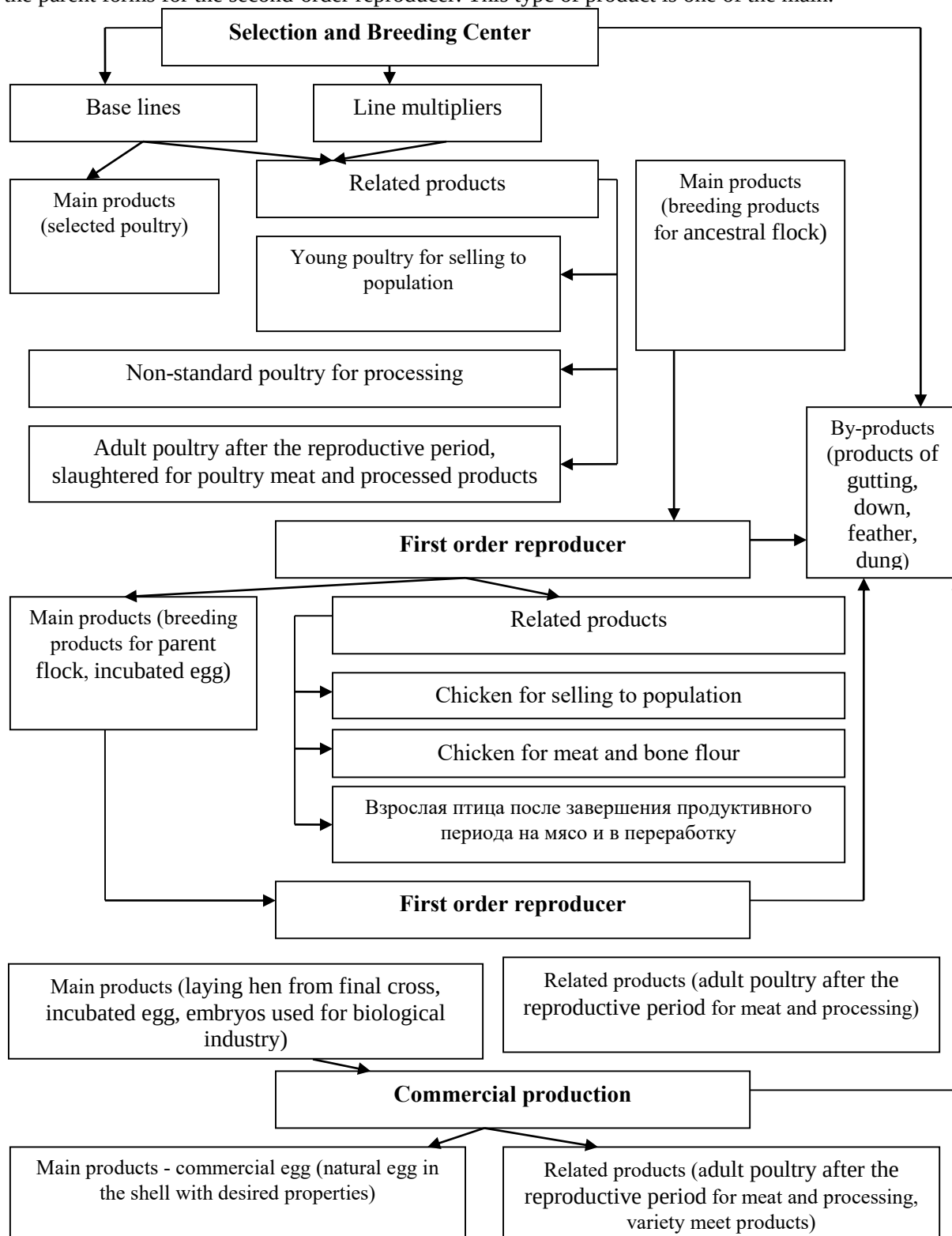


Figure 1. Conceptual model of industry subjects relationship by egg type poultry production.

It should be noted that in the structure of the market potential of the first-order reproducer the main production is more than 48%, taking into account the non-standard birds.

The specificity of the market potential development of the related products of the second-order reproducer is that it consists of non-standard poultry (layers, hens), which is subsequently utilized, and the birds that have completed their reproductive period are slaughtered for meat and used as raw materials for processing.

The parent flock is the basis of the market potential of commercial products in the form of the final hybrid of laying hens. Their production depends on the type of products sold: egg (90-95%) or daily young growth, the amount of which depends on the volume of the incubated egg and the percentage of hatching (75-80%).

The market potential of the main products of the researched subject can be expanded through the production of embryos, which are used for the production of vaccines and biological products.

Among the main products in the egg poultry industry is commercial egg by category and with the desired properties, and the related products – laying hen after the reproductive period in the form of meat, by-products and raw materials for processing.

In the hierarchy of poultry products market potential development the subjects of the industry give a special place to by-products (litter, slaughter products, feathers, fluff) of equity.

Due to the fact that products with high added value are a vector of economic efficiency growth of any economic entity of the industry, a model of the market potential for processing poultry products was developed, built depending on the purpose of its implementation in the egg poultry farming.

This model includes four blocks: for food purposes in the form of dry and liquid egg products; for primary processing (boiled, canned, frozen omelets, egg rolls); for industrial purposes (food, chemical, biological and other sectors of the economy); for feed purposes (meat and bone flour, egg feed powder).

The prospects for the maximum realization of the market potential of these products depend on the ratio of their price and quality, the solvency of the population and other factors.

One of the sources of increasing the efficiency and economic viability of poultry enterprises is the diversification of the product portfolio and the effective implementation of waste-free technologies. At the same time, a reserve for increasing the market potential of poultry products could be the effective processing of low-value raw materials of poultry activity. Such by-products are the products of slaughter and gutting, down, feather, dung used for food and feed purposes, as well as organic fertilizer.

An assortment model of market potential with the justification of the economic feasibility of their processing is also developed for this group of products.

3. Conclusion

The study of theoretical developments regarding the conceptual term of "market potential" of the final product allowed to formulate the semantic load for this economic category in relation to poultry products, to develop the author's classification of species and subspecies of market potential.

The structural components of the market potential of poultry products are represented by the appropriate models for products obtained directly from the biological object, processing products and by-products.

By developing these models, the differentiation of features is laid in each of them. This made it possible to clearly identify their information context, which represents the heterogeneity and breadth of the products produced by the industry, and therefore its possible market potential.

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