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**EVALUATION OF THE ECONOMIC EFFICIENCY OF  
AGRICULTURAL ORGANIZATIONS IN THE REGION**

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**Abstract**

In the conditions of competitive struggle and economic crises, there is a problem of growth in the effectiveness of the functioning of economic entities of the agricultural sphere, which can be called the main link in ensuring the food security of the country. One of the advanced agricultural regions of the Russian Federation, which need to develop the entire agro-industrial complex of the country, is the Belgorod region. The country has actively conducted the consistent work on the creation of competitive industrial agricultural production. In recent years, in the region, it has become possible to observe the growth of the production of basic types of products in both branches of crop production and livestock industry. Here the main role belongs to the established integrated formations and measures of state support, both regional and federal levels. In the agricultural organizations of the region, a significant increase in production costs is traced, performance indicators are not at high levels, which creates certain risks to ensure financial and economic sustainability and expanded reproduction. All of the above-mentioned has determined the direction of this study. The article analyzes the economic condition of economic entities of the agrarian complex, a comparative assessment of the effectiveness of agroholding and independent agricultural organizations, identified external and internal reasons that deter the increase in the efficiency of the functioning of agricultural producers of the region, activities have been proposed to improve the efficiency of the functioning of agricultural complex.

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*Keywords:* Economic efficiency, production, profit, profitability, SWOT-analysis



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## **1. Introduction**

The radical restructuring of the economy management system in modern Russia is associated with the transition of the national economy to market mechanisms affecting all levels of management. Serious changes occur in the system of economic, organizational and social relations in the country. The legal and economic independence of commodity producers bearing full responsibility for the results of its financial and economic activities suggests that each enterprise is developing a management system that ensures high efficiency of its work. Based on the integration interaction, the distribution of resources and the exchange of products between agricultural and processing enterprises occurs. As the economy develops, the role of such indicators increases along with the volume of production and sales of the enterprise. It is these indicators that are a decisive factor in the formation of profits and profitability of economic entities, as well as the most important aspects of improving the welfare and quality of life of society (Kitayov, 2019).

The ratio of production growth and product sales directly affects the amount of costs, profit and profitability of the enterprise, as well as the overall efficiency of the organization, and therefore the significance of these indicators cannot be contested. The reason is that new factors are added under market relations, the ignoring of which can lead to undesirable consequences, such as financial losses and in the case of unfavorable development of events even to bankruptcy. All of the above proves the relevance and significance of the selected research topic.

## **2. Problem Statement**

In terms of conversion conditions in the agrarian sphere, the problem of stabilization and an increase in the economic efficiency of agricultural production becomes paramount importance. The level of efficiency of agricultural production in many respects determines the degree of power security of food. Economic growth is one of the criteria for the economic development of the region, which is assessed by the increase in the production of goods and services to maximize the needs of the population. The dynamics of economic growth depends on many factors. The study of these factors and their influence allows the leaders of the regions to develop the necessary economic policies and a set of measures to stimulate economic growth, as well as measures to limit the inhibitory influence of these factors to the economy. The problem of economic growth is currently taking a central place in economic discussions and discussions conducted by representatives of various nations and countries.

## **3. Research Questions**

The subject of research is the production and sale of products in the agricultural organizations of the Belgorod region. The research objectives are:

- 3.1. to analyze the current state of the economy of agricultural production in the region, identify the factors that affect the production and sale of products in agricultural organizations in the region;

3.2. to evaluate the financial performance of agricultural organizations, identify priority areas for improving the efficiency of production and sales in the region.

#### **4. Purpose of the Study**

The purpose of the work is to provide theoretical justification and develop practical recommendations aimed at improving the economic efficiency of agricultural enterprises in the region.

#### **5. Research Methods**

The study used dialectical and systemic approaches to the study of economic phenomena and processes, general scientific methods (observation, analysis, synthesis), which made it possible to ensure the argument and accuracy of the conclusions.

#### **6. Findings**

Economic growth is one of the criteria for economic development, which is assessed by an increase in the production of goods and services to maximize the needs of the population, which directly affect the amount of costs, profit and profitability of the enterprise, therefore the significance of these indicators cannot be challenged (Tetyurkina & Demesheva, 2018). The main economic indicators of the activities of the agricultural organizations of the Belgorod region are presented in table 1.

According to the data of the table, the production of agricultural products in the region in 2019 decreased from 16.4% and amounted to 246861 million rubles, which also led to an increase in costs of 13.5% and revenue by 11.2%. Profit from sales, at the same time, decreased by about 1.0%, and net profit increased by 7.6%, at the expense of subsidies that come from the budget, as well as other activities. Considering the above indicators, the profitability of the activities of the AIC enterprises amounted to almost 17% (Kolesnikov et al., 2019).

Most of the agricultural organizations of the Belgorod region operate under the control of agroholding. The leading positions on the amount of profit gained belongs to such major producers of the region as LLC "Pricious", Ltd. Belgrankorm, Miratorg LLC, Agro-Belgorier LLC and Rusagro-Invest LLC, specializing in the production of poultry production and pig breeding. In these organizations, the level of profitability for the period under study exceeded 20%.

The production analysis showed that in 2019 compared to 2017, the production of grains increased by 63.5%, sugar beets and sunflower - by 7.8 and 40.8%, respectively. It can be said that the region is fully capable of providing a livestock industry with feeds. The growth of poultry meat reached 792 thousand tons, and pork - 750 thousand tons (Bojchenko et al., 2020).

Evaluation of the production concentration in the Belgorod region based on the market concentration coefficient, the market concentration index, the level of concentration of the commodity market showed that in the plant industry, the high level of concentration was achieved in the cultivation of grain crops; the market share was 77%. A high level of concentration is noted in the cultivation of birds, pigs and the production of eggs, which confirms the specialization of the region.

According to the results of the analysis of the structure of revenue from the sale of agricultural products in the context of the main producers of products in the region, it was obtained that in 2019. The greatest share of revenue from the sale of grain, sugar beet and sunflower was obtained in LLC Rusagro-Invest. In the livestock industry, 96,0% of the revenue from the sale of pork was obtained in Miratorg LLC (Reshetnyak & Gruzdova, 2016).

**Table 1.** Main production and economic indicators of agricultural enterprises of the Belgorod region

Indicators	2017	2018	2019	Growth rate, %
Gross product value (self-cost), thousand rubles	212085966	210379863	246861458	116.4
including:				
crop products	35156849	37 992477	40409922	114.9
livestock products	113124546	106883355	128978995	114.0
Sales revenue, thousand rubles	243594493	260217720	270826757	111.2
Cost of sales, thousand rubles	194727984	205204963	220961566	113.5
Number of agricultural organizations, units	219	221	218	99.5
Agricultural arable areas, ha	1206354	1298654	1321367	109.5
Arable land, ha	1075955	1126658	1172983	109.0
Production, t:				
- grain	1722886	1874204	2816410	163.5
- sugar beet	2261013	2302951	2437404	107.8
- sunflower	239849	284452	337803	140.8
Poultry gain, t	703125	780694	792512	112.7
Pork gain, t	717798	676073	750526	104.6
Milk, t	368449	380392	526429	142.9
Eggs, million units	1245687	1262319	1315048	105.6
Average annual number of employees, persons	57429	54698	53149	92.5
Average monthly salary of agricultural workers, rubles	35837	36786	37389	104.3
Labor productivity, thousand rubles	3693.01	3846.21	4644.69	125.8
Profit on sales, thousand rubles	39097616	44821858	38665597	98.9
Received for 1 enterprise:				
- revenue, thousand rubles	1112304	1177456	1242325	111.7
- profit on sales, thousand rubles	178527.9	202813.8	177365.1	99.3
Net profit, thousand rubles	34463962	36138854	37075897	107.6
The level of profitability of sales, %	16.1	17.2	14.3	-
The level of production profitability, %	17.7	17.6	16.8	-

When comparing the production indicators of agroholdings and independently functioning enterprises (table 2), we can see that the yield of grain crops and egg production of hens influences organizations that have not been included in agroholdings. For all other indicators - agricultural trees are leading.

Based on the calculations performed for the prospects of the development of production in the region, we propose to use the SWOT-analysis technique. On its basis the list of possibilities and threats of

the external environment, the strengths and weaknesses of the internal environment of enterprises have an impact on the production and sale of products (Rodionova et al., 2015). The data are presented in table 3.

With the help of SWOT-analysis, it was revealed that such strengths of enterprises as high security by production resources, modern exhaust technologies would benefit from the following possibilities of the external environment: government subsidy, solvent demand for high-quality food, as well as participation in economically significant regional programs (Kolesnikov et al., 2019).

**Table 2.** Comparative assessment of the effectiveness of activities in agroholding and independently functioning organizations

Indicators	Agroholdings			Other agricultural organizations			Agroholdings to other ones in average for 3 years, %
	2017	2018	2019	2017	2018	2019	
Productivity of land, c/ha							
– grain	40.0	55.3	55.3	55.5	56.6	55.9	85.9
– sugar beet	367.8	371.3	381.4	323.2	394.1	476.4	95.0
– sunflower	25.0	31.8	33.4	20.8	33.1	33.8	106.1
Milk yield per cow, kg	5175	574	6336	4918	4377	4985	84.6
Average daily gain of cattle, g	464	552.0	595.7	595	466.3	498.8	103.3
Average daily gain of pigs, g	545	601	554	506	394	620	111.8
Average daily gain of poultry, g	42.8	50.9	51.1	24.5	27.5	1.8	269.1
Egg-laying capacity, units	267	254	238	266	269	261	95.4
Gross production cost per 1 ha of arable land, thousand rubles	96.6	119	132	6.3	11.2	63.5	429.1
Profitability level, %	11.7	9.4	17.4	8.3	15.1	11.4	3.7

**Table 3.** Development strategy of production in the Belgorod region based on SWOT-analysis

	Strengths:	Weaknesses:
Matrix	High production factors endowment (S1); Collateral base (S2); Good credit record of a number of agro-industrial formations (S3); Modern proven technologies (S4); Control of a large number of links in the value added chain (S5); Long-term experience agro-industrial integration development (S6).	Lack of a scientifically grounded system of business activities (W1); Low indicators of production efficiency (W2); Problems with pig, poultry and sugar beet wastes disposal (W3); Debt load of agro-industrial formations (W4).

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External environment opportunities:		
State subsidies for agro-industrial production (O1);	S1, S4 and S5 allow one to take	W1 may hamper to take O2;
Effective demand for high-quality food (O2);	O1, O2 and O3;	W2 may hamper to take O2 and O4;
Political support for large-scale production (O3);	S2 and S3 allow one to take O4.	W4 may reduce O3;
Bank lending to the agro-industrial complex (O4);	S5 and S6 allow one to take O5.	W4 may hamper to take O1, O4 and O5.
Potential objects and subjects of integration in the region (O5).		
External environment threats:		
Increasing of food imports, WTO factor (T1);	S1 allows one to confront T2 and T3	W2 may bring the agro-industrial enterprises to tight situation in case of T1, T2 and T3;
Aggravation of domestic producers competition (T2);	S4 and S5 allow one to confront	W3 may aggravate consequences of T4
Rise in the prices of consumed resources (T3);	T1, T2 and T3.	
Environmental law enforcement (T4).		

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The main sources of increasing the profit of agricultural enterprises are: increasing the volume of sales of products, reducing its cost, improving the quality of marketable products, selling them in more profitable sales markets, and others. According to the calculations, the total volume of growth in the amount of profit from sales in agricultural enterprises in the region may amount to 2470606 thousand rubles, including due to an increase in marketable products – 1540321 thousand rubles, due to improved product quality – 2 29457 thousand rubles, an increase in production – 349447 thousand rubles, a reduction in cost – 351381 thousand rubles. The possible level of return on sales will be 22.26%, an increase of 2.03%.

These activities will allow one to effectively develop production at the enterprises of the Belgorod region and to achieve high indicators.

## 7. Conclusion

Analysis of the current state and development of the economy of agricultural production in the Belgorod region showed that the increase in grain production was one of the conditions for the growth of livestock production. The main reasons for increasing pork production, poultry and egg meat are active actions of investors and support for regional authorities, as well as the implementation of targeted departmental programs in the Belgorod region. The main producers of products in the region are integrated structures - agroholding.

The application of the SWOT-analysis methodology and the introduction of the identified reserves for profit growth and profitability will allow us to determine the prospects for the development of production and sales of products by agricultural enterprises in the region.

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