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Analytical study of agribusiness as a tool for competitive development of the region in the context of globalization and integration risk

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Abstract. Scientific and applied research in the field of monitoring the state and trends of development of the regional agro-industrial complex (AIC) is becoming a very important and objectively necessary in the context of permanently changing geo- and macroeconomic conditions, as well as in the aspect of the risk of globalization and integration. All this requires the development of syncretic forms, methods, and approaches to the system of management and organization of the national economy, which ultimately should be harmoniously synthesized in the structure and content of the socio-economic strategy of competitive development of agriculture at the regional level and the level of macroeconomics.

1. Introduction

A key factor of sustainable socio-economic development of the region, especially in the context of the main calculations and provisions of the documents in the field of strategic planning at both the federal and regional levels, is a balanced development of the agro-industrial complex, taking into account the risk situations and uncertainties caused by sectoral sanctions and volatility of market conditions.

A number of program and target activities provide for the integrated development of all areas of agriculture and, at the same, time priorities of the two levels.

The first level should include the following: the production sphere of (developing dairy and beef cattle primarily due to the existing potential of agricultural land); the economic sphere (increasing the level of efficiency and profitability of agricultural producers); the social sphere (sustainable development of rural areas as a factor of strengthening the labor potential and territorial integrity); the sphere of production potential; the scientific and personnel sphere (providing conditions for innovative development of agriculture).

The second level includes: developing the import-substituting spheres of agricultural production; improving the quality and level of environmental safety of products, raw materials, and food; activating the export-oriented approaches in the system of organization and management of the market of food and agricultural raw materials; reducing various transport and logistics costs; ensuring a high level of veterinary protection of the region and prompt relief of sources of dangerous animal diseases.

The paper provides an analytical research of regional agricultural tools in the context of the competitive development and the risks of globalization and integration

Methods used in the research: in the course of the study, general scientific methods of cognition of socio-economic processes and systems were applied: concretization, synthesis, abstraction; methods of



expert assessments, comparisons, analytical and graphical methods, as well as logical and process approaches. Statistical data processing was carried out in the Statistics, MS Excel. The information and empirical base of the study included the official data of the territorial body of the Federal State Statistics Service of the regional and federal levels, including the official data coming from relevant bodies of the regional executive power, analytical agencies, communities, associations and departments, as well as the materials of scientific and practical conferences and publications in periodicals.

Problem statement. The need to ensure a comprehensive strategy of competitive advantages of the agro-industrial complex of the Voronezh region is closely correlated with the processes of developing an economic mechanism in the constituent sectors, aimed at the fullest satisfaction of the demand for food products, taking into account the qualitative and quantitative characteristics, ensuring the optimal level of prices for agricultural raw materials and food, improving the level and quality of life, as well as strengthening and increasing the export potential of the region.

Ways to solve the problem. Formation of an effective mechanism to improve the efficiency and innovativeness of the sectoral economy of the region, to improve competition and infrastructural support of the market environment of specialized goods and services, as well as to strengthen the integration and cooperation ties of the economic entities of the agro-industrial complex with the inclusion in the process of specialized subjects of the production environment, the service sector, agriculture, authorities, and research and educational institutions.

Results. The obtained informative data (ensuring reliability, objectivity, measurability, and sufficiency) allows to identify a number of trends in the current state and development of agriculture of the Voronezh region.

Application. The results can be used in the process of formation and correction of the strategy of socio-economic development of this sector of economy, the development of program-target mechanisms of state regulatory management, as well as business structures in terms of the development of adaptive-competitive methods and approaches aimed at more effective functioning in the modern market environment.

2. Analysis

In terms of a breakthrough benchmark of the socio-economic development of our country, the agro-industrial sector, in our opinion, should be given a key role, since it is the link of organizational, managerial, production-technological, and socio-economic relations between economic entities throughout the product vertical [3, 9].

Thus, in view of the high importance and significance of this sphere of organization and management of the national economy, at the current moment and in a historical retrospect, the effective, sustainable, balanced, competitive, innovative, and investment development at the theoretical, methodological and applied levels has been the number of both institutions and individual scientists.

In particular, a great contribution to the innovative development of the domestic agro-industrial complex, both strategically and tactically, was made by: the All-Russian Research Institute for Agricultural Economics with the participation of the Federal Scientific Center for Agrarian Economics and Social Development of Rural Territories; the All-Russian Institute of Agrarian Problems and Informatics named after A. A. Nikonov; the All-Russian Scientific Research Institute of Economics and Standards; the All-Russian Research Institute of Production, Labor, and Management in Agriculture; the Northwestern Scientific Research Institute of Economics and Organization of Agriculture; the Volga Research Institute of Economics and Organization of the Agro-Industrial Complex; the Scientific Research Institute of Economics and Organization of the Agro-Industrial Complex of the Central Black Earth Region of the Russian Federation; the Far Eastern Scientific Research Institute of Economics and Organizations of AIC; the Siberian Research Institute of Agricultural Economics.

A. Altukhov, V. Boev, I. Bogomolova, A. Vershinin, V. Zakshevsky, E. Zavorotin, A. Mindrin, A. Nechaev, I. Nikitina, A. Paptsov, N. Pastukhova, A. Petrikov, P. Pershukevich, Yu. Ragulina, E. Semenova, V. Surovtsev, K. Ternovykh, M. Tikhomirov, I. Ushachev, I. Khitskov, D. Chepik, and others have made a significant contribution to the research of multidimensional system problems in the field of economics, organization, and management of the agro-industrial complex at the macro-, meso, and micro levels.

Currently, the system support and further integrated development of the agro-industrial complex of the Voronezh region are relevant because of the declared policy of accelerated import substitution, ensuring domestic food independence, escalating sanctions restrictions, enhancing globalization and integration processes, and organizing a special economic zone. It should be noted that the sustainable development of raw materials sectors of agriculture – crop and livestock – is a key direction for the improvement of agro-industrial production. The Voronezh region is a zone of intensive agricultural and processing production. The region has a reference type of fertile soil, so 3/4 of the total area is occupied by unique black soil. Considering the noted factor together with favorable bioclimatic conditions, the region is a large agricultural center of the country. The profile of agricultural production is the beet-type, with a significant share of Shrovetide, mainly sunflower, and grain crops, having a highly developed sector of dairy and beef cattle, pigs and poultry [4, 8].

The region has 4 million hectares of agricultural land, including 3 million hectares of arable land. The structure of the sown area has the following ratio: 50% are grain and leguminous crops, 23% are industrial and 13% are fodder crops.

In terms of production of agricultural products, the region occupies one of the leading positions in the Central Federal District of the Russian Federation. The agro-industrial complex of the Voronezh region in recent years shows a stable growth trend. Figure 1 shows the gross crop collection indicators of the main group in farms of all categories of the Voronezh region [2].

Significant results in the industry became possible due to the technical equipment of production, the use of scientific approaches in agricultural technologies, the involvement in the turnover of 98% of arable land (the best indicator in Russia). The strategic direction in crop production in the coming years was the development of domestic breeding and seed production [1, 7].

The Voronezh region is a major producer of livestock products due to the construction of new complexes, technical and technological industrial modernization, and an increase in the livestock genetic potential. The meat and dairy clusters are organized and successfully functioning, the formation of a pig breeding cluster is being completed. Figure 2 shows the dynamics of the production of main types of livestock products in farms of all categories of the Voronezh region.

In 2017, in all categories of farms, 841 thousand tons of milk were produced, which is 7% more than the 2016 level. The volume of meat production for slaughter in live weight by all farms was 422 thousand tons, agricultural organizations of the region produced. The key indicators are provided in Table 1.

The introduction of sanctions by the EU and the unstable situation in the foreign exchange market adversely affected the implementation of investment projects. First of all, the cost of technological equipment and pedigree livestock increase, mainly due to the fact that this includes exports by 90%. Thus, it will increase the payback period of the project. However, regional producers understand that this is a unique chance for dynamic development in the conditions of a formed niche. And as a result, as of 07.01.2018, according to the operational data in agricultural enterprises, the number of cattle amounted to 304.9 thousand heads (100% for the period of 2017), including 122.7 thousands of cows (103%), 1269.2 thousand pigs (1.5 times). The production of main types of livestock products was: 198.7 thousand tons of meat (livestock and poultry for slaughter in live weight; +50.3 thousand tons, or + 34%); 324.5 thousand tons of milk (+32.1 thousand tons, or + 11%); 338.7 million units of chicken eggs (+38.9 million units, or + 13%). Milk yield per cow increased by 251 kg and amounted to 3546 kg for 6 months of 2018.

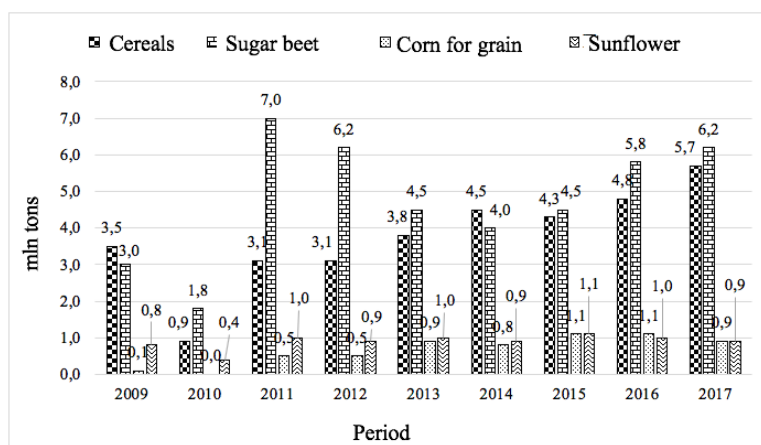


Figure 1. Gross harvest of crops of the main group in farms of all categories.

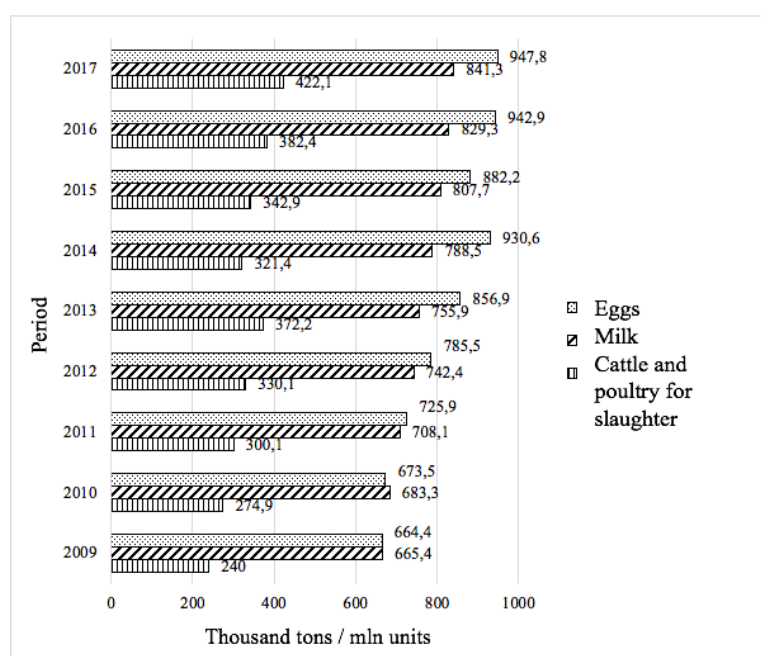


Figure 2. Production of main types of livestock products in farms of all categories of the Voronezh region [7].

Table 1. Volumes of meat production for slaughter in live weight (agricultural organizations of the Voronezh region), thousand tons [5].

Indicator / Year	1980	1985	1990	1995	2000	2005	2010	2013	2014	2015	2016	2017
Meat (cattle and poultry for slaughter in live weight)	246.8	285.1	350.2	117.6	60.0	65.9	141.3	228.0	220.3	245.1	288.2	318.0
Pork meat for slaughter in live weight	103.2	122.8	136.9	24.6	13.2	13.3	31.4	87.5	82.2	97.6	133.0	159.0

Poultry meat for slaughter in live weight	22.8	26.3	32.6	13.3	3.7	18.6	81.8	108.1	107.1	111.4	113.9	116.0
Beef meat for slaughter in live weight	113.1	127.8	171.3	76.6	42.5	33.6	27.8	32.1	30.8	35.9	40.8	43.0

Volumes of meat production in slaughter weight by categories of farms in the Voronezh region for the period 2000-2017 are illustrated in Figure 3.

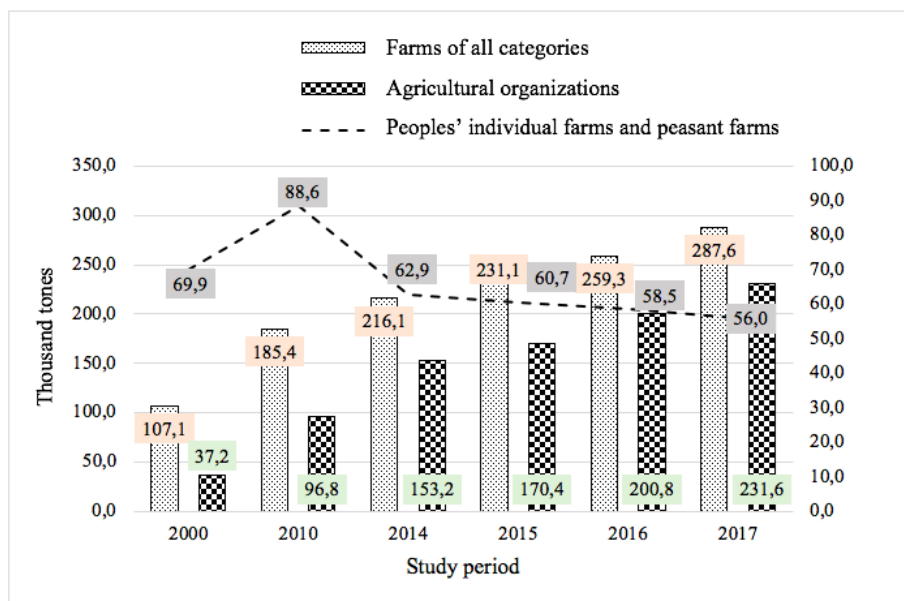


Figure 3. The volume of meat production in slaughter weight by categories of farms in the Voronezh region for the period 2000-2017 [7].

The growth of milk production is largely due to the annual commissioning of 2-3 dairy complexes of more than 1,200 heads. In 2018, it was planned to commission 6 dairy complexes with a total population of 15.0 thousand heads.

The region has a logistic system of beef cattle breeding: genetics-production-feed-processing-sale. For four years, about 250 commercial herds of cross-breed and purebred cattle of meat production have been created in the region. The largest of them are the Zarechnoe LLC, Chesmensky Horse Farm LLC, and EcoProdukt LLC.

In the pig industry, sites are currently under construction in the Semiluksky and Nizhnedevitsky municipal districts of the Cherkizovo Group of Companies, Donskoy Bacon LLC in the Ostrogozhsky District, as well as the implementation of the investment project of the AgroEco Group of Companies (this company produces more than 58% of the total regional volume of pork produced) in Bobrovsky, Buturlinovsky, Kalacheevsky, Novokhopersky, Pavlovsky, Povorinsky, and Talovsky municipal districts; this company also plans to start building pig farms on the territory of Vorobyevsky municipal district [2].

In the poultry industry, leading positions are occupied by the Cherkizovo Group of Companies with poultry meat production, having in the first half of 2018 more than 57 thousand tons. In egg production, the Bobrovsky Chickens LLC continues to modernize and increase egg production volumes (154 million pieces), and the Ryaba LLC of the Khokholsky municipal districts (68 million units). According to the results of 6 months in 2018, egg production amounted to 43 million units. The planned volume of egg production in 2018 should be 136 million units. The implementation of

investment projects in animal husbandry in the medium term (2018-2021) will increase the production of meat, milk, eggs by 40%, 20%, and 30% respectively.

Growth in demand for domestic products stimulated the development of the food and processing industries. In 2017, the region produced goods to the amount of more than 185 billion rubles, which amounted to 106.3% of the previous year. The increase was achieved in almost all types of products.

In terms of sugar production, the region remains the leader and ranks second in the country, being the first in the Central Federal District. In 2017, more than 841 thousand tons of sugar were produced in the region. The increase in production in the sugar industry was made possible by the reconstruction and modernization of sugar refineries, the processing volume of which is 42 thousand tons of sugar beet per day. The production of confectionery products has increased by 1.8 times compared to the previous year. High growth rates in the confectionery industry are ensured, first of all, by the KDV Voronezh LLC. Currently, 50 lines are involved in production and more than 3,000 jobs have been created. The confectionery production volume for 2017 amounted to 175 thousand tons (2.4 times increase to the level of 2016).

Thanks to the implementation of large-scale investment projects, the amount of investment in the agro-industrial complex amounted to 50.5 billion rubles (28% of the total investment in the region). At the same time, investment activity in agriculture increased in 1.6 times; the increase in the processing industry was by 15.4%. As a result of project implementation, 2,064 jobs were created. In 2017, more than 6 rubles of investments were attracted for 1 ruble of state support.

Enterprises and organizations of the agro-industrial complex of the region paid taxes to the budgets of all levels of 11.7 billion rubles, which is almost 12% of all tax revenues. The growth of tax payments from enterprises and organizations of the agricultural sector to the level of 2016 amounted to 15.5%, including 35% from food industry enterprises (in the whole region, tax revenues increased by 10.7%) [1, 2, 5].

An important factor stimulating the development of the agrarian sector of the economy is still state support. The volume of subsidies to organizations of the agro-industrial complex of the region amounted to 9.15 billion rubles, including 1.8 billion rubles from the regional budget. Of the total subsidies, 22% of the funds were used to support the crop industry and 75% to support livestock. Given the priority areas of support chosen by the region, the most significant amount of subsidies is aimed at supporting dairy cattle breeding (2.8 billion rubles, 35% of total subsidies). As a result, in the reporting year, the volume of milk production in agricultural enterprises and peasant farms amounted to 618.2 thousand tons, an increase of 42 thousand tons (fourth place in Russia). The yield per fodder cow increased by 350 kg and amounted to 6492 kg (5836 kg in Russia).

16% of the total subsidies in the amount of 1.3 billion rubles were allocated to support beef cattle breeding, which made it possible to ensure the fourth result in the Russian Federation in terms of cattle meat production (45 thousand tons) and second place in the cattle meat growth rating (4 thousand tons).

State support in such areas as pig and poultry amounted to 1.97 billion rubles (24% of total subsidies). As a result, the growth of pork production by 28% was achieved, 170.6 thousand tons were produced, which ensured the 5th place in the rating of Russian regions for this indicator. The number of pigs in specialized enterprises as of the beginning of 2018 was 1137 thousand heads (1.7 times increase over the reporting period). In 2017, the region took the 1st place in Russia in terms of increasing the number of pigs, and it was the third in terms of numbers.

To ensure the integrated development of the pig industry, it is necessary to ensure the full biological safety of the region. So in the reporting year, in the framework of the implementation of measures for the prevention of African swine fever, the mechanism of creating a 5-kilometer zone around pig-breeding complexes was used for the first time.

Further modernization of the sectors of the agro-industrial complex is aimed at the transition and use of innovative technologies that will make it possible to reduce the degree of its dependence on adverse climatic conditions and increase the production of food products, raw materials, and food. This will be facilitated by regional target programs. In particular, it is worth noting the following state

measures: “Development of Agriculture, Food Production and Infrastructure of the Agri-food Market” (as amended on April 28, 2018) and “Development of the Integrated Amelioration of agricultural land in the Voronezh Region until 2020” [1, 6, 8].

In the reporting year, the approach was changed to the allocation of grant support funds for the beginning farmers and the development of family livestock farms based on peasant farms. Grants were provided, first of all, to peasant farms operating in areas with low density of conventional livestock. In total, 179.5 million rubles were allocated to support small business forms. Since 2017, grants have been provided for the development of the material and technical base of agricultural consumer cooperatives. About 18 million rubles were allocated for these purposes. Six jobs were created, and the implementation of the event itself served as a stimulus for the development of consumer cooperation in the region [1, 2].

Another very important aspect that influences the development of the agro-industrial complex is the issue of social development of the village. In the reporting year, as part of the implementation of program measures for the sustainable development of rural areas, construction of 10.9 thousand square meters of housing for 124 families was completed. More than that, 49.6 km of water supply and 16.6 km of gas pipelines were built, as well as 15.7 highways in rural areas. The total amount of funding amounted to 661.5 million rubles.

In 2016, the implementation of the priority project “International Cooperation and Export” began in the region, within the framework of which a separate area is envisaged – “Export of Agricultural Products”. At the end of the year, exports of agricultural products of the region exceeded \$450 million in value terms, which is 22% higher than the 2016 level. The following commodity groups made the greatest contribution to the export volume: 58% in grain; 14% in oils and fats; and 12% in sugar and sugary products. These are the indicators of direct exports. In addition, 905 thousand tons of grain was shipped from the territory of the Voronezh region during 2017, using rail transport for delivery to the grain terminals of the Novorossiysk Sea Trade Port [4, 5].

The grain harvest in 2017 was an absolute record in the history of the region. But such records, as a rule, entail great problems. The main one is the fall in prices and, as a result, the profitability of producers. Despite the increase in export sales, many of them have significant residues of unrealized grain due to low prices. However, this problem is not only “record periods.” Each year, the balance of grain for sale amounts to 1.5 million tons. Production with high added value is interesting for both domestic and foreign markets; therefore, one of the main areas over which to work in the coming years is the construction of enterprises for the deep processing of wheat, as well as an increase in the capacity of the existing starch mill to 100 thousand tons of corn processing per year and the construction of at least one more enterprise [2, 4].

In order to improve the competitiveness of crop production, work on the introduction of modern agricultural technologies to improve the quality of grain crops remains fundamental for the industry. As an example of directions and questions that should be addressed. This is organic farming, issues of electronic veterinary certification. This tool will help eliminate the counterfeit and “gray” imports. At the same time, it will provide a competitive environment [10-12].

The main task in the current period, as before, remains the work on attracting direct investment in the agricultural sector. In accordance with the approved plan, the amount of investment in the agricultural sector in 2018 will be 37 billion rubles.

To solve the main task of modernization and technological renewal of the industry, state support of enterprises in the amount of 6,608 million rubles will be allocated to enterprises and organizations of the agro-industrial complex this year, including 1,700 million rubles from the regional budgets [1, 4].

3. Conclusions

Thus, at present, the administrative structures of the agro-industrial complex of the region have been assigned a number of priority goals and objectives, the achievement of which would ensure the

sustainable balanced and competitive development of the latter, taking into account the factors of globalization, integration, and sanctions restrictions.

The group of goals includes:

- Creating favorable organizational and economic conditions for the development of sectoral subjects of the regional AIC;
- Increasing the competitiveness of products, raw materials and food, including for import-substituting items;
- Improving the financial and economic sustainability of the economic entities of the complex;
- Providing the necessary socio-economic level of development of rural areas;
- Reproduction and increase of efficiency of using land and other resources, as well as increasing the level of greening production.

To achieve these goals, it is necessary to solve a complex of tasks:

- Increasing the pace of production of main types of agricultural products, raw materials, and food through the use of innovation-oriented technologies;
- Developing the infrastructure of the agri-food market; in particular, special attention should be paid to the transport and logistics sector;
- Building up and strengthening small business forms;
- Increasing the level of profitability of agricultural producers for the most part due to the organization and implementation of a flexible and fair pricing policy;
- Improving the well-being and quality of life of the rural population through the creation of jobs with decent wages (above the average for the region);
- Stimulating innovation activity and increasing innovation activity in the agro-industrial sector based on the implementation of targeted program activities and improving the integration and cooperation of producers with the service sector of the complex;
- Increasing the effectiveness of regional authorities in the development of the agro-industrial complex based on optimization and reduction of administrative barriers;
- Activization of actions in the direction of land reclamation, improvement of soil fertility and environmental safety of both resources and finished products;
- Conducting anti-epizootic measures in the quarantine and hazardous areas of the region, based on a comprehensive program involving peasant farms and personal subsidiary farms;
- Modernization and capacity building of the material and technological base of breeding, seed production and animal husbandry;
- Improving commodity-marketing activities, increasing the marketability of food by optimizing the conditions of seasonal storage and part-time work;
- Increase in the production of vegetables and fruits in peasant farms and personal subsidiary farms, including individual entrepreneurs, on the basis of targeted financial support and organization of the market for products at a fair price.

The set of basic measures aimed at improving competition in the agro-industrial sector includes the availability of financial resources for producers, conducting a balanced protectionist policy in the domestic market, increasing exports of products, raw materials, and food.

The immediate development of a competitive environment will be facilitated by the following set of measures:

- Creating joint groups of farmers for effective interaction with large suppliers of raw materials and materials, as well as processing enterprises in terms of sales volumes, purchase prices, delivery times and quality;

- Developing and conducting educational activities on the basis of information and consulting centers aimed at improving the efficiency of business processes carried out by modern farmers;
- Improving the system of state support for farmers in the areas of finance, organization, consulting;
- Simplification of the allocation of land for the needs of agricultural production.

The level of competition in the industry market of crop products could be higher under the conditions of organizing a rational grain trading system, ensuring equal conditions for the use of trading platforms.

In the livestock sector, the basic set of measures aimed at improving the competitive environment will be focused on increasing investment attractiveness, ensuring a proportionally balanced growth and development of highly productive livestock, introducing and adapting advanced technologies, and increasing the profitability of production [32, 33].

Thus, the simultaneous and synchronous inclusion of the entire set of program measures helps to form and maintain an optimal competitive environment in the regional industrial markets, which will ultimately set a positive development trend for the entire agricultural sector at the macro level.

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