EMERGENT: JOURNAL OF EDUCATIONAL DISCOVERIES AND LIFELONG LEARNING (EJEDL)

ISSN: 2776-0995 Volume 2, Issue 4, April, 2021

PROBLEMS OF INNOVATIVE ECONOMY IN DEVELOPMENT OF AGRICULTURE

Eshmamatova Madina
Bachelor student of Tashkent state university of economics
Email: eshmamatovamadina@gmail.com

Annotation:
The article considers the issues of innovative development of the agricultural and industrial complex of the domestic economy. The study analyzes the socio-economic situation of Uzbekistan in the agricultural sector, identifies the features of the flow of innovative processes characteristic of this area, and suggests measures necessary to stimulate the innovative transformation of agricultural territories.

Key words: innovative development, agricultural and industrial complex, regional agro-industrial complex, state support for innovation, technopark. innovative development, agricultural and industrial complex, regional agro-industrial complex, state support for innovation, technopark, Rostov region

The main features of the branches of specialization are the scale (large volumes) and the efficiency of production. Such industries play a crucial role not only in the production and export of products, but also in influencing the location of productive forces, since these industries play the role of a center in the region, which attracts auxiliary service and other complementary industries. Consequently, the creation of conditions for the innovative development of the agro-industrial sector in the region is one of the most important factors contributing to the competitiveness of the Russian regional socio-economic system and the level and quality of life of the population.

When implementing agricultural policy, it is necessary to pay great attention to achieving higher final results of production activities, both in agriculture and in the entire agribusiness, ensuring stable production growth rates, improving its efficiency and social development of the population, and protecting the economic interests of representatives of the agricultural sector. Uzbekistan is developing an effective mechanism for introducing scientific developments into the real sector of the economy. Innovative activity is at the heart of the sustainable development of the modern state.

Innovative development of agricultural production involves the use of highly productive and resistant to adverse environmental factors of plant varieties and animal breeds, the implementation of complex mechanization and automation, advanced training, working conditions and everyday life of employees, the transition to intensive environmentally friendly and resource-saving technologies for agricultural production, ensuring the integration of science with production. Important conditions for the development of

innovation activities are the integration of science and production, public partnership and support for international contacts of innovative business. Innovation process means the innovative activity of an enterprise. It is aimed at the development and implementation of the results of scientific and technical research in the form of a new product or a new technological process. We can say that an innovation process is a sequential chain of events, during which an innovation "matures" from an idea to a specific product, technology or service and then spreads in economic practice. In accordance with the Decree of the President of the Republic of Uzbekistan "On the formation of the Ministry of Innovative Development of the Republic of Uzbekistan" dated November 2, 2017, as well as in accordance with the tasks set by the Strategy of Action for the five Priority Areas of Development of the Republic of Uzbekistan, it was determined to promote innovative ideas and technologies in the agricultural sector that contribute to improving production efficiency and strengthening food security of the country.

Tasks included in the field of innovation in agriculture: - making proposals for the introduction of modern forms of agricultural production, based on the concept of "Smart Agriculture", allowing the rational use of available land, water and other natural resources; - assistance in the introduction of innovative ideas and technologies in the agricultural sector, allowing the maximum automation of agricultural production; - assistance in expanding sales markets and direct deliveries of agricultural products by ensuring their competitiveness in the world market. To achieve good results in agriculture, first of all, you need the ability to work competently with the land, timely implementation of agrotechnical measures. Currently, farmers are charged with the task of introducing industry in the villages, providing employment for residents of the territory, especially rural youth, and establishing the service sector. In the production of agricultural products, resources occupy a central place, and the growth rate of agricultural production depends on the availability of these resources. Limited resources (land, labor, material, financial) force farmers to look for reserves in rational use, which is why at present the issue of resource conservation and determining the optimal ratio of resources in the economy is very important. Farms are characterized by intensive development of production. The intensification of production is a restructuring of the entire economic mechanism, taking into account the resource-saving factor. Intensification is a progressive process, constantly increasing, covering all areas of agricultural production. The current stage of intensification provides for the transition to an innovative path of development, which is characterized by a systematic approach to the problem. Effective use of resources can be achieved if the entire technological chain of production, processing and use of raw materials is evaluated from the point of view of resource conservation. At the same time, you should not engage in resource saving for the sake of saving. Identification and elimination of limiting factors allows you to fill them in time, as a result, other resources work more efficiently, they are saved. At the same time as solving the problems of resource conservation, it is necessary to switch to innovative

methods of development. At the same time, resource conservation itself should be modernized taking into account an innovative approach. Highly intelligent potential and high-tech developments in the field of agriculture are the basis for the development of innovative activities in farms. Despite the positive results in the implementation of innovative developments in agriculture, it is necessary to continue to consistently develop a continuous system that combines all stages of the innovation process-from the creation and development of the invention to its commercialization and production of the final product. The innovative approach of farming in its activities solves a number of agrotechnological problems and has certain achievements in irrigation, drip irrigation, seed production, greenhouse construction, fertilizer production, plant protection products and much more. Innovative development of agricultural production primarily affects the growth of export potential. The expansion of exports of fruits, vegetables and other food products has a positive impact on the country's foreign trade balance. Currently, these products account for 6.2 % of Uzbekistan's exports by value, which makes them 1.5 times more valuable than the export of cotton, a traditional Uzbek export product. The net profit of some agro-industrial organizations due to the export of agricultural products has increased several times in recent years. As the ongoing reforms show, the government aims to make Uzbekistan one of the world's largest exporters of fresh and processed fruit and vegetable products. Within the framework of the Action Strategy for the five priority areas of development of Uzbekistan in 2017-2021, approved by the President of the Republic of Uzbekistan, it is planned to implement 434 projects aimed at the modernization and intensive development of agriculture. Until 2020 It is planned to create 14 trade and logistics centers in the regions for processing, storage, packaging and export of fruit and vegetable products with a capacity of more than 310 thousand tons. When organizing them, attention is paid to the availability of appropriate infrastructure that provides high-quality transportation, storage, sorting, calibration, packaging, certification, as well as export.

By 2017-2021, it is expected to increase the production of food products by 1.4 times, processed fruit and vegetable products by 2 times, and exports of fruit and vegetable products by 2.3 times.

Innovative development of the agro-industrial complex of the region involves the effective use of scientific and technical potential, the integration of science, education and production, technological modernization of the economy on the basis of innovative technologies. The solution to this complex task requires the creation of appropriate conditions: the corresponding infrastructure of innovation activity or a set of material, technical, legislative and other means that provide information, expert, marketing, financial, personnel and other services for innovation activity.

Innovations in practice in agriculture are understood as the use of new plant varieties, breeds of farm animals, production technologies in the fields of crop production, animal husbandry and processing of agricultural products. In a broader sense, innovation is the final result of

innovation activity, which has been implemented in the form of a new or improved product sold on the market, a new or improved technological process used in the production and processing of agricultural products.

Innovative breakthroughs in agriculture are associated with the achievement of three interrelated goals:

Ensuring food security,

Resource conservation,

Environmental and social well-being of rural areas.

The innovation process is the transformation of scientific knowledge into innovation and includes the following stages: "science-technology (technology) — production-consumption". In the agro-industrial complex, the innovation process involves a constant flow of turning research and development into new or improved products, materials, new technologies, new forms of organization and management, and bringing them to use in production in order to achieve an effect. Innovation processes in the agro-industrial complex have their own specifics. They are distinguished by a variety of regional, industry, functional, technological and organizational features. The conditions and factors contributing to the innovative development of the agro-industrial complex are the availability of natural resources, a significant scientific and educational potential, a capacious domestic food market, and the ability to produce environmentally safe, natural food products.

At the same time, at the present stage of economic development, science and innovation in agriculture in Uzbekistan remain in little demand.

The analysis of the socio-economic situation of Uzbekistan in the agricultural sector in recent years shows that outdated technologies, plant varieties, imperfect methods and forms of organization of production and management are used here. The number of samples of newly designed mechanisms of agricultural automation tools has significantly decreased, and the intensity of the process of mastering and implementing innovative equipment and technologies of agricultural production by large farms and small farmers has decreased. Modern farms prefer, at best, to buy imported samples of equipment and introduce foreign technologies, but for the most part, enterprises use rather worn-out and obsolete equipment. All this aggravates the degradation of the industries of the complex, leads to an increase in the cost price and low competitiveness of products, slows down the socio-economic development of rural areas, and sharply reduces the quality of life in rural areas.

Measures for the transition to a new level of agricultural production should be significantly supplemented by projects for the formation of a unified environment that encourages innovative transformation of agricultural territories, using the most modern technological opportunities for the development of human potential and its effective use. It is very important that the entire complex of infrastructure that accompanies modern business in agriculture is formed.

The extremely low level of innovation activity is associated, among other things, with the imperfection of the organizational and economic mechanism for the development of innovations. There are no proven mechanisms of implementation activities, a system of scientific and technical information that corresponds to a market economy, and there is no proven effective scheme for interaction between scientific institutions and implementation structures.

State support for innovation activities in the agro-industrial complex

The main source of funding for basic research in the agro-industrial complex at the moment is public investment.

Financial support for scientific, scientific and technical, innovative activities is provided by the Republic of Uzbekistan, the subjects of the Republic of Uzbekistan through the financing of organizations engaged in scientific, scientific and technical, innovative activities, including targeted financing of specific scientific, scientific and technical programs and projects and innovative projects. Financial support for innovation activities can be provided by both state support funds and funds to support scientific, scientific and technical, innovative activities created by legal entities and (or) individuals, i.e. non-state funds.

Basically, there are two forms of sources of financial support for innovation – direct and indirect financing (Table 1).

Table 1-Sources of innovation financing

Direct sources	Indirect sources
Budget (federal and regional) funds	Tax benefits and discounts
Extra-budgetary funds	Tax credits
Own funds of enterprises	Credit benefits, i.e. the provision of loans to enterprises that are potential consumers of innovative developments
Loans	Financial penalties for non-performance of contracts (specific relationships) and obligations
Innovative investments	Leasing of special scientific equipment and stands
Direct sources	Indirect sources
Special funds	Customs benefits
Innovative foreign loans	Depreciation benefits
Grants	Science-based pricing for scientific and technical products

State support for innovation activity is a set of measures taken by the state authorities of the Republic of Uzbekistan and the state authorities of the subjects of the Republic of Uzbekistan in accordance with the legislation of the Republic of Uzbekistan and the legislation of the subjects of the Republic of Uzbekistan in order to create the necessary legal, economic and organizational conditions, as well as incentives for legal entities and individuals engaged in innovation activities.

State support for innovation activities is based on the following principles:

Programmatic approach and measurability of goals in the planning and implementation of government support measures;

Availability of state support at all stages of innovation activity, including for small and medium-sized businesses;

Advanced development of innovative infrastructure;

publicity of the provision of state support for innovation activities by posting information about the measures of state support for innovation activities in the information and telecommunications network " Internet»;

Priority of further development of the results of innovation activity;

Protection of private interests and promotion of private initiative;

priority use of market instruments and public-private partnership instruments to promote innovation;

Ensuring the effectiveness of state support for innovation activities for the purposes of socio-economic development of the Russian Federation and the subjects of the Russian Federation;

The targeted nature of the use of budget funds for state support of innovation activities.

The above principles can also be supplemented with the following:

Optimization of state support should be carried out "by the possibility of combining its various forms and methods of implementation, taking into account the characteristics of the subject of innovation activity, the stage of innovation activity, the results of scientific and scientific-technical activities used in the production of innovative products, the type of innovative products produced and other indicators."

The rationality of providing state support implies that it should completely exclude the unjustified financing of similar innovative projects and programs.

Continuous improvement of forms of state support and ways of its implementation-the external environment is changing, innovative enterprises themselves are developing, and this requires improving state support.

One of the main documents regulating state support for the innovation activities of agricultural enterprises is the State Program and within its framework the sub-program "Technical and technological modernization, innovative development", the purpose of which is to ensure the increase in the innovation of the agro-industrial complex.

In the process of implementing this subprogram, it is planned to solve the following tasks:

stimulating the purchase of high-tech machinery and equipment;
creating a system of information support for agriculture based on the formation of information resources and expanding the access of agricultural producers and the rural population to consulting services;
conducting systematic training and retraining of personnel of the agro-industrial complex;
implementation of measures aimed at implementing the results of research work of agricultural science;
promotion of innovative activity and innovative development of the agro-industrial complex.
The program notes that, despite the research work carried out by agricultural scientific institutions of the Rostov region, the level of implementation of existing innovative projects and developments remains low. The level of technical and technological equipment of agricultural and processing industries remains low.
Agricultural producers are not sufficiently informed in the field of scientific developments.
Lack, physical and moral wear and tear lead to a violation of the technology of work and agrotechnical deadlines for their implementation. The innovative development of the agro-industrial complex involves, of course, not only the renewal of the fleet of agricultural machinery. This includes breeding work, the use of new types of fertilizers, and the use of innovative management methods.
Creating conditions for the innovative development of the agricultural sector is one of the most important strategic goals of state policy, the achievement of which will ensure food security, increase the competitiveness of the national economy, the level and quality of life of the population.
To overcome the negative factors, state intervention and support are necessary, which can and should be carried out both indirectly, in the form of creating favorable conditions for its development, and with the direct participation of the state.
The developed strategy of the Republic of Uzbekistan in the field of science and innovation development is designed to play a special role in ensuring innovative growth and potential of agro-industrial enterprises.
The proposed system of measures is based on the concentration of investors ' resources and the funds of owners of large agro-industrial holdings to finance R & D in key areas, which include:
increasing the level of "human capital" in the management system of agro-industrial integrations, which is one of the main competitive advantages;
preservation (development) of the environment that provides expanded reproduction of fundamental knowledge about large systems of integration entities in the system of the River Uz;
creation of innovative management methods and infrastructure in agro-industrial integrations for the implementation of national priorities of technological development and management, ensuring the transformation of knowledge into a market product The agro-

industrial complex in the region is experiencing an acute shortage of qualified personnel capable of implementing innovative technologies and working on modern equipment. This is largely due to the lack of experience in long-term cooperation between professional education institutions and businesses. In these conditions, it is necessary to conduct systematic training and retraining of agricultural personnel using modern scientific achievements and best practices.

State support for innovative activities of the agro-industrial complex in the agricultural field

In order to stimulate the innovative development of the agro-industrial complex of the agricultural region, state support is provided to agricultural producers in the implementation of innovative projects in the form of subsidies.

In the Rostov region, as an agricultural region of the country and one of the leaders in the gross production of agricultural products, there is a strong scientific and human potential in agriculture:

research institutes;

higher educational institutions;

secondary educational institutions;

institutes of advanced training;

interregional training center;

experimental stations.

The Ministry of Agriculture and Food of the Rostov Region is working to promote the innovative development of the agro-industrial complex. Financial support is also provided to agricultural producers who spend on innovative activities, and financial support is provided. The regional budget provides funds for the payment of subsidies to reimburse part of the costs of implementing innovative projects in the field of agricultural production and (or) processing of agricultural products. At the same time, an innovative project is understood as the final result of innovative activity, which has been implemented in the form of a new or improved product sold on the market, a new or improved technological process used in the production and processing of agricultural products.

One of the events within the framework of the work on the activation of innovative activity in the agricultural sector of the region is the annual competition "The best innovative development in the agro-industrial complex of the Rostov region", held among young scientists of state agricultural educational and scientific institutions.

Despite the efforts made and the high scientific and technical potential, the Rostov region is characterized by an insufficient level of innovation implementation, which is manifested both in a small number of innovatively active enterprises and in a low share of innovative products in the total production volume. The Concept of the development of the agro-industrial complex of the Rostov region notes a low level of implementation of existing innovative projects and developments. The reason for this is the lack of development of mechanisms for the transformation of scientific ideas into technologies and products, which

allows us to concentrate investment and intellectual resources on breakthrough areas. The problem of introducing innovative developments is also the low solvency of agricultural producers, as well as the conservatism of the villagers. The Concept proposes to combine measures of state support aimed at stimulating proposals for the introduction of innovations with measures promoting innovative technological development of the industry for the successful innovative development of the regional agro-industrial complex.

Of the total number of completed, accepted and recommended for the implementation of applied scientific and technical developments in the field of agriculture, only 2-3% are being implemented. Extremely low innovation activity in the agro-industrial complex is due to a number of factors: the

lack of close interaction between the state and private business;

low level of costs for agricultural science;

low investment opportunities for agricultural producers;

poor training of specialists and insufficient motivation of employees to master innovations, etc.

According to expert estimates, in modern Russia, internal factors form one-third of innovation risks, and external factors form two-thirds. In stable market conditions, this ratio is the opposite.

As negative factors hindering the innovative development of the Russian agro-industrial complex, it should also be noted:

high level of risks of innovative processes in the agricultural sector. The risk of financing research and production results, the risk of a temporary gap between costs and results, and the uncertainty of demand for innovative products do not interest private investors to invest in the development of agriculture;

departmental disunity and the weakening of the scientific potential of agricultural science. Domestic agricultural science is characterized by a high degree of complexity of the organizational structure and departmental disunity (more than 20 ministries and departments involved in solving problems of the agro-industrial complex);

inertia of businessmen employed in the agro-industrial complex, especially among small producers and farmers.

The weak link in the formation of effective innovative development of the agro-industrial complex is the study of the demand for innovations. Marketing has not yet become an integral part of the formation of orders for research and development. As a rule, when selecting projects, a deep economic expertise is not carried out, efficiency and risk indicators are not evaluated, and schemes for promoting the results obtained in production are not worked out. This leads to the fact that many innovative developments do not become an innovative product.

A significant factor hindering innovation in agriculture is also the fact that the use of innovations is seasonal. The same applies in most cases to the product sales market and

profit generation. These features can be an obstacle to self-financing of innovative activities of agricultural enterprises that invest their funds in expensive projects and the latest technologies purchased by import.

The peculiarity of the agro-industrial complex of the Rostov region is mainly small-scale production. Often, economic and legal illiteracy does not allow farmers to use the proposed mechanisms for business stabilization based on the introduction of innovative projects. This also hinders the innovative development of the industry.

The main problems of the introduction of innovative developments include the low solvency of agricultural producers, as well as the conservatism of the villagers.

The main event "Ensuring the innovative development of the agro-industrial complex" includes the following expenditures of the regional budget:

activities for conducting research and development work;

measures for the creation of a system of state information support (SSIO);

measures for the development of a system for conducting agro-industrial production in the agricultural region;

events for the contest "The best innovative development in the agro-industrial complex of the agricultural region";

events for the creation and maintenance of a data bank in the field of soil fertility;

activities to support the development of advisory assistance to agricultural producers;

subsidy to agricultural producers (except for citizens who run private subsidiary farms, agricultural consumer cooperatives and individual entrepreneurs) for reimbursement of part of the costs of implementing innovative projects in the field of agricultural production and (or) processing of agricultural products;

subsidy to agricultural producers (except for citizens who conduct private subsidiary farming) and organizations of the agro-industrial complex, regardless of their organizational and legal form, to reimburse part of the costs of training and additional professional education of personnel.

Problems of innovative development of the agro-industrial complex and ways to solve them

Speaking in general, about innovative development in the subjects of the Uz River, we note that one of the deep problems, without solving which it is impossible to change the situation in the Russian regions, is the low activity of people living in rural areas, lack of initiative, pessimism, negative attitude to the rural way of life, currently prevailing in the Uz River, low labor productivity in the agro-industrial complex, caused by the lack of qualified personnel in rural areas. Promoting new ideas, changing the conservative thinking of the peasantry, improving the skills and mastering new competencies of agricultural workers in order to move agricultural production to a fundamentally new level is, in our opinion, the most important task that can be solved if the government, business and educational institutions cooperate.

All the advantages of innovative activity in the agro-industrial complex can be realized under the condition of the formation of a regional mechanism for managing innovative developments in the agro-industrial complex that correspond to modern conditions of economic activity.

The degree of consistency and balance of innovation processes within the agro-industrial complex depends on the availability of a variety of options for economic methods and forms that are used in the development of innovative activity of economic entities.

Informatization of production and specific recommendations on various aspects of the industry's functioning are of great importance for the development of innovative activities at enterprises. Modern information technologies based on the corresponding data sets allow using well-known quantitative forecasting methods with high efficiency. The use of these methods will optimize the use of limited resources and increase the overall efficiency of the functioning of agricultural enterprises.

In accordance with this, only through the joint efforts of the state, science and agro-industrial enterprises, it is possible to increase innovation activity in the country's agricultural sectors in the future.

The role of technoparks in the innovative development of regional agribusiness

Technoparks created on the basis of large agricultural universities in those regions where the agro-industrial complex is singled out as the "locomotives of growth" can become structures designed to promote innovations in the agro-industrial sector.

Tasks to be solved with the help of such technoparks:

increasing the volume of agricultural production;

implementation of measures for the development of innovative activities of agricultural enterprises;

improving the profitability of agricultural production;

improving the environmental situation in the region;

the creation of new jobs, which in the future should lead to a decrease in the migration of young people to the cities;

increase in budget revenues.

Unfortunately, the experience of functioning of such technoparks in our country is still small. As the analysis of the experience of various regions has shown, they are mainly created either in high-tech industries, or in order to stimulate the innovation activity of small enterprises. The idea of creating such technology parks in the field is not new, the first steps in this direction were made in the early 1990s. As a positive example, we can consider the experience of the Voronezh State University. Agro University, which in the 90s of the XX century was formed the starting complex of the University agro technopark, including the first in the River Uz. exhibition center in an educational institution, self-funded innovative business units, peripheral innovation links in 12 districts. Currently, on the basis of the Voronezh State Agrarian University, a pilot project of the regional agro technopark is

operating, including an expocenter, a business education center, a center for training managerial and financial personnel, a center for promoting modern technologies, an agro engineering center, a veterinary center, a center for training accountants, a center for packaging technologies, etc. All of these business units are self-financing. The service departments of the agrotechnopark are a computer center, a distance learning laboratory, a publishing center, and computer classrooms. In addition, the technopark includes representatives of industrial, trade and consulting firms interested in promoting their products in the field of agriculture.

Unfortunately, it can be stated that this experience is the exception rather than the rule in our country. At the same time, it should be noted that technopark structures in general are not yet sufficiently developed, and those that have already been created, according to experts, are not very effective in their mass. As for technoparks in the agricultural sector, state support is particularly needed here. This is primarily due to the peculiarities of doing business in the agricultural sector. One of the deep problems, without solving which it is impossible to change the situation in the Russian countryside, is the low activity of human potential, people living in rural areas, lack of initiative, pessimism, negative attitude to the rural way of life, currently prevailing in Russia, low labor productivity in the agro-industrial complex, caused by the lack of qualified personnel in rural areas. Promoting new ideas, changing the conservative thinking of the peasantry, improving the skills and mastering new competencies of agricultural workers in order to move agricultural production to a fundamentally new level is, in our opinion, the most important task that can be solved if the government, business and educational institutions cooperate.

The agro-industrial complex is one of the structural intersectoral complexes for the region, the development of which will contribute to the growth of the region's economy as a whole. The adoption of such a Law will be an important step towards the formation of the regional innovation system of this subject and improving the efficiency of its socio-economic development.

Summing up the above, we note that important strategic directions for the development of agriculture and the entire agro-industrial complex in the regions and the country as a whole are research progress and innovative processes that allow for continuous updating of production based on the development of science and technology, that is, the effectiveness of agro-industrial production is determined by the interaction of science and practice, the introduction of advanced innovative technologies into production. One of the ways to stimulate innovation activity in the field of agriculture can be the creation of technopark structures. Based on the accumulated positive experience, further actions are needed on the part of the regional authorities in the direction of the formation of such centers, designed to become sources of innovative development not only for individual industries, but also, ultimately, for the region as a whole.

The implementation of innovative projects on an ongoing basis will contribute to the growth of economic efficiency and reduce risks. However, there is a negative effect in this direction of development. The introduction of innovative high-tech ways of carrying out agricultural activities entails the release of low-skilled labor and the growth of an already significant level of unemployment in rural areas.

The systematic nature of the implementation of innovative projects in agribusiness will help to increase the number of jobs. Newly created jobs will require employees with new competencies.

Thus, innovative activity in agriculture in Uzbekistan is a process of managing complex natural and economic systems based on the development of innovations, scientific farming, crop production and animal husbandry. In a market economy, it is advisable to include financial, economic and tax factors in the overall system of agriculture, and to assess the impact of agar markets on the structure and efficiency of agricultural production. All this contributes to the innovative development of agriculture, which affects the food security of the population, the growth of export potential and the standard of living of the rural population.

References:

1. Decree of the President of the Republic of Uzbekistan" On the formation of the Ministry of Innovative Development of the Republic of Uzbekistan " dated November 2, 2017.
2. Action strategies for the development of Uzbekistan in 2017-2021. - T.: Uzbekistan. 2017.
3. Technical and technological re-equipment of agriculture is necessary / A. T. Stadnik, D. M. Matveev, M. G. Krokhta, P. P. Kholodov / / Agro-industrial complex: economy, management. - 2012. - No. 5. - pp. 68-71.
4. Altukhov A. I. Innovative way of agricultural development as a basis for improving its competitiveness// Bulletin of the Orel State Agrarian University. - 2008. - No. 6. - volume 15.
5. Matveev D. M. Organizational and economic mechanism of development of achievements of scientific and technical progress in agriculture / D. M. Matveev, Ten Yong Dog / / Agro-industrial complex: economy, management. - 2010. - No. 9. - pp. 81-83.
6. Shabanova T. I. Development of agriculture in Russia / / Siberian Trade and Economic Journal. -2010. - No. 10.
7. Matveev D. M. Management of technological processes as a basis for the development of agricultural enterprises / / Vestnik NGAU. - 2008. - No. 8. - pp. 60-65.
8. Butenko Yu. V. Innovative directions for accelerating scientific and technological progress in agriculture and other areas of the agro-industrial complex// Bulletin of the Volga State University. Series 10: Innovative technologies. — 2008. — № 3.