ному, бюджетной ссуде; выплату денежных средств, необходимых для совершения платежа по аккредитиву; погашение задолженности по договорам финансовой аренды/лизинга, лизинговым платежам и иным обязательствам; платежи по договорам финансирования под уступку денежного требования (факторинга); использование дочерними компаниями в качестве заемных средств.

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INNOVATIVE TECHNOLOGIES IN AGRICULTURAL DEVELOPMENT

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Ключевые слова: инновации; инновационный потенциал; инновационная деятельность; инновационная активность; инновационная инфраструктура. Key words: innovations; Innovation potential; innovative activity; innovative activity; innovative infrastructure.

Аннотация: Важным условием устойчивого развития сельского хозяйства является эффективная инновационная политика, конечной целью которой является внедрение основанных на достижениях научно-технического прогресса новых, передовых технологий, изобретений, форм организации труда и управления производством. инновационный процесс в АПК имеет свою специфику, обусловленную особенностями агропромышленного производства, и, прежде всего, его главной составной части — сельского хозяйства.

Summary: An important condition for the sustainable development of agriculture is an effective innovation policy, the ultimate goal of which is the introduction of new, advanced technologies, inventions, forms of labor organization and production management based on the achievements of scientific and technological progress. The innovation process in the agro-industrial complex has its own specifics, determined by the characteristics of agro-industrial production, and, above all, its main component agriculture.

Agriculture is the most extensive sphere of human activity, most of the technological processes of which are carried out on large land masses in the open air, where nature systematically makes its adjustments. The constant presence of elements of risk, instability of technological production processes due to local time and weather restrictions require managers and specialists of farms, farmers to have in stock alternative management solutions for implementation in extreme conditions, and in their absence, a quick search and application of scientific recommendations and best practices for technological readjustment of production, maneuvering equipment and other resources in order to weaken or eliminate the influence of adverse environmental factors. In this process, rural producers should be assisted by various innovative formations: agrotechno-parks, scientific and production systems, associations, small enterprises, cooperatives, information and consulting centers and points, and other innovative institutions and organizations.

The high level of complexity of agricultural production as a system and the indicated features of the innovation process in it predetermine the uniqueness of approaches and methods for its implementation.

The main features of the formation and development of the innovation process in agriculture include the following:

- multiplicity of types of agricultural products and products of their processing, a significant difference in the technology of their cultivation and production;
- strong dependence of production technologies in agriculture on natural and weather conditions;
- a large difference in the production period for certain types of agricultural products and their processed products;
 - high degree of territorial disunity of agricultural production;
- isolation of agricultural producers (at all levels) from organizations producing scientific and technical products;
 - different social levels of agricultural workers;
- multiplicity of different forms and connections of agricultural producers with innovative formations;
- lack of a clear and scientifically substantiated organizational and economic mechanism for transferring scientific achievements to agricultural producers and, as a consequence, a significant lag in the industry in mastering innovations in production.

In conditions of market relations, as experience and scientific research have shown, the basic principles of the functioning of innovative formations change somewhat. The functioning of any formation of an innovative nature is based, as is known, on certain principles, the fullest observance of which in practice, in turn, determines the successful achievement of the goal set for this formation. These principles are the starting points that reflect a variety of aspects for both the creation of these formations and their functioning [1].

In relation to innovative formations when developing the fundamentals of their functioning in market conditions, it is advisable to distinguish five blocks of these principles:

- organizational, related to the organizational foundations of creation and structural features of these formations;
- functional, related to the definition and implementation of their specific functions;
- economic, related to the economic content of innovative formations and the relationships of their participants in the process

functioning;

- social, related to the form of ownership, staffing, working conditions of specialists in them;
- development of external relations, covering various aspects of foreign economic and advertising and promotional activities.

All these principles in modern conditions must be observed as much as possible and be embodied in specific solutions and parameters that do not conflict with them. Compliance with the listed principles will allow innovative formations to function successfully in market conditions and have a positive impact on the development of scientific and technological progress in agricultural production and in the agroindustrial complex as a whole.

The main directions of innovation policy in the agro-industrial complex are:

- formation of a sectoral innovation system in the agro-industrial complex;
- intensification of the activities of agricultural science to conduct fundamental and applied research;
- legal and regulatory support for innovation activities, protection of intellectual property and their introduction into economic circulation;
- every possible acceleration of the development of scientific, technological and advanced experience in production;
- development of infrastructure for the innovation process, certification system and promotion of scientific and technical developments, training and retraining of personnel;
 - development and improvement of information and consulting activities;
- state support for agricultural producers in order to restore their solvency and the ability to carry out innovative activities;

- improving the competitive system of examination and selection of innovative projects and programs for the purpose of their implementation in agro-industrial production:
- formation of an economic mechanism for managing and stimulating innovative processes in the agro-industrial complex at all levels;
 - training of highly qualified personnel for subjects of innovative activity;
- development of international cooperation in organizing innovative activities in the agro-industrial complex.

The set of comprehensive activities in the indicated areas of implementation of innovation policy in the agro-industrial complex should ensure the sustainable scientific and technical development of the agro-industrial complex.

Innovative activities to implement all of the above areas are carried out in compliance with the following basic principles:

- recognition at all levels (from the government to a specific commodity producer) of the priority of the development of innovative processes as the basis for effective functioning;
- scientific validity of all decisions and practical actions for the implementation of innovation policy and the development of innovative processes in the agro-industrial complex;
- integration of scientific, scientific-technical and educational activities during the development of innovative processes in the agro-industrial complex;
- orientation towards a clear organization of the development of innovative processes and their high efficiency in production.

In modern realities, the use of technology and various innovations is an integral condition of any sphere and agriculture is no exception. That is why great attention is paid to advanced technologies in this area. The use of innovative technologies makes it possible to improve the quality of agricultural work performed, as well as obtain more accurate data necessary for agricultural production. Currently, four main types of innovative technologies in the agro-industrial complex can be distinguished:

- selection and genetic;
- economic (development of more effective methods of organizing and managing production);
- socio-economic (development of agriculture from a socio-economic point of view);
- production (use of created innovative material resources for a clearer and faster solution of agricultural problems).

In world practice, there are a large number of innovative developments. Let us consider several innovative projects that are already being introduced into rural production in foreign countries. AgCode software - this program was created by Glenwood and is intended for farms that grow grapes. The program is a kind of management and monitoring tool and has the following functionality: storage and transmis-

sion of data on vineyards in a single database; tracking weather and natural conditions, the degree of ripeness of grapes, their yield and the salaries of each employee related to cultivation. Such a program allows a person to quickly and clearly make the necessary decisions depending on the data presented. Today, this software is used by some of the best wineries in the world [2].

The Sample6 system, a system developed by PerkinElmer, is the fastest system in the world for searching for pathogenic substances in plants. From the moment the substance enters the system, it is detected after 6 hours. The system is fully automated - the operator only needs to press a button, the sample preparation process occurs without human intervention [1].

The CropX intelligent irrigation system is an innovative system developed in Israel. A key feature of the system is saving water and electricity. The system consists in the fact that the entire land plot is initially divided into separate irrigation zones according to such characteristics as soil type, humidity and relief. Then, wireless sensors are installed in each of the selected zones, which analyze the soil and calculate the required amount of water at the moment. Thus, farmers do not have to think about how much water needs to be supplied to a particular plot. This will allow us to grow higher quality products, minimize crop loss and reduce energy costs [3].

The Flow automated hive is an innovative development of farmers from Australia. The Flow hive has a special frame, which contains the main technology. This frame consists of partially formed honeycombs, which the bees pump with wax, lay down the product and seal. After this, the frame opens in the middle, causing the honey to flow down from the two rows of honeycombs. Once all the honey has drained, the comb is closed again to allow the bees to continue the priming process. For convenience, a transparent window was made in the hive, through which you can see that the honey is ready for collection. As a result of experiments, it was revealed that bees do not see the difference between regular honeycombs and Flow honeycombs [3].

So, to summarize, it should be noted that innovative technologies have moved far forward in a short period of time. Technologies in most cases are focused on reducing human labor costs and increasing energy efficiency. In the modern agro-industrial complex, the role of innovative technologies has increased significantly. Without the use of innovation, it is almost impossible to create competitive products. Innovation is an effective means of competition, as it leads to the creation of new needs, a reduction in production costs, an influx of investment, an increase in the image of the manufacturer of new products, and the opening and capture of new markets, internal and external.

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INNOVATION AS A WAY TO INCREASE THE COMPETITIVENESS OF AN ORGANIZATION

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Ключевые слова: конкурентоспособность, организация, инновации; инновационная деятельность; инновационная активность; стратегия.

Key words: competitiveness, organization, innovation; innovation potential; innovation activity; innovative activity; strategy.

Аннотация: Главным условием экономического развития страны является выпуск конкурентоспособной продукции и укрепление конкурентных позиций отечественных организаций как на внутреннем, так и внешнем рынках. В этой связи одним из ключевых факторов обеспечения конкурентоспособности предприятий и экономики страны в целом являются инновации, способствующие получению и создающие условия формирования экономической выгоды или улучшающие потребительские свойства продукции (товара, работы, услуги).

Summary: The main condition for the country's economic development is the production of competitive products and strengthening the competitive positions of domestic organizations in both domestic and foreign markets. In this regard, one of the key factors in ensuring the competitiveness of enterprises and the country's economy as a whole is innovation that facilitates the receipt and creates conditions for the formation of economic benefits or improves the consumer properties of products (goods, work, services).

At the present stage of development of relations in the economic sphere, scientific and technological progress is important, as well as the processes of development of innovations that could ensure the constant modernization of production. This can be achieved by resorting to the development of science and technology. Livestock