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Innovation as a factor of economic development of formational type

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Abstract

Innovative formation of the agricultural sector in Russia is one of the main conditions for increasing the competitiveness of the national economy in the world market. Currently, the technical, technological, scientific, managerial level of the overwhelming number of domestic agricultural producers does not make it possible to achieve the level of productivity of developed countries, such as the countries of European Union or the United States. In this regard, a well-justified decision is a systematic cumulative transition to the introduction of innovations in different spheres of domestic agricultural production – from raw materials to management systems. Currently, investments in agriculture in Russia are going to restore fixed assets due to their significant natural wear and tear, so the issues of updating the active part of fixed assets largely characterize the possibility of transition to new technologies, an innovative way of development of domestic agriculture, but with the creation of a favorable investment climate by the state. In the presence of a large number of conditions that currently impede the innovative development of agriculture in Russia, with a balanced system of state support; these obstacles can be successfully overcome. Therefore, in the new economic conditions it is necessary to accelerate innovation processes in agriculture.

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Keywords

Innovation, economy, form, structure, development.

Introduction

Innovative activity in agriculture is a set of consistent actions to create new or improve agricultural products, technology development, management systems based on the use of research and development or production experience [Agola, 2016]. Innovative activity in agriculture of Russia has its own peculiarities.

First, the indisputable feature of the final product in relation to other industries is food. In this case, the application of any innovation should be focused not only on economic benefits, but also on ensuring the health of consumers. In this case, the property of the product or possible harm to the consumer is often impossible to assess in the short term, and the negative effect can be expressed only after a long period of consumption (a vivid example is the cultivation of GMO products) [Lenger, Taymaz, 2007].

Second, the introduction of innovations in agricultural production has temporary features. Since food production is significantly associated with seasonality, in order to assess the impact of certain innovations on the final product, it takes time for the product to be grown, processed. Since this process takes several months and a secondary "test" of innovation is possible only in the next season, which makes the evaluation of the effectiveness of innovation long - term. This is especially noticeable in crop and livestock production, in which the production cycle exceeds 1 year. At the same time, there are areas of agriculture where the period for assessing innovation can take 5-10 years [ibid.].

The third feature is the diversity of agricultural products. Small farms are forced to produce a wide range of different goods, reduce their risks from crop failure or market fluctuations. In this regard, the development of innovative technologies should take into account this factor in order to be beneficial to different producers, and have a wide range of applications [ibid.].

The fourth feature is the unpredictability of weather and natural conditions. Productivity and production technology often depend on them. Independence from weather conditions is the direction of innovative development associated with the development of more resistant varieties and breeds.

The fifth feature is the importance of adaptation of plants and animals to different territorial and climatic conditions. This suggests the need for a local approach to the construction of a mechanism for innovation in agriculture and public policy aimed at stimulating innovation in agriculture.

The sixth feature is the remoteness of agricultural enterprises in Russia. Therefore, if the implemented technology requires investments in the equipment, it will interfere with the possibility of its joint use. Small farms have to have a wide specialization, so they are forced to keep inefficient universal equipment, and investments in specialized equipment for them cannot afford.

The seventh feature is the low level of Qualification of agricultural workers in Russia, which necessitates the process of training and training of personnel in the implementation of innovation [ibid.].

The eighth feature of innovation in the Russian agroindustrial complex is the lack of established relationships between the vast number of producers. And this applies to both agricultural producers and producers of related industries, including those aimed at the production of innovative products in terms of agricultural engineering, fertilizer production, seed production, as well as elite breeds of animals [Agola, 2016]. At the same time in Russia there is no effective mechanism for the introduction of scientific and technical developments in production [Lind, Barner, 2018]. This circumstance leads to the fact that the degree of innovation in agriculture in Russia remains very low.

Innovation as a factor of economic development

Currently, investments in agriculture in Russia are going to restore fixed assets due to their significant natural wear and tear, so the issues of updating the active part of fixed assets largely characterize the possibility of transition to new technologies, an innovative way of development of domestic agriculture, but with the creation of a favorable investment climate by the state [Lenger, Taymaz, 2007].

Thus, in the presence of a large number of conditions that currently impede the innovative development of agriculture in Russia, with a balanced system of state support these obstacles can be successfully overcome. As the practice of the EU and the US shows, the basis for the successful development of the country's agribusiness is consistent state support for the agricultural sector on a long-term basis [Morone, Petraglia, Testa, 2013]. In this regard, the development of agriculture in Russia and its transition to innovative development, the state should form through the development of appropriate infrastructure, the formation of a system of consulting and informing producers [Cowling, 2016], training and retraining of employees, as well as providing effective forms of economic support to agribusiness entities developing on an innovative basis.

The category of sustainable development is decisive for any environment, but sustainable agricultural development is achieved if the reproduction of productive capacity, human resources and the natural environment is ensured in unity and interaction for a long time. The socio-economic and agricultural policy of the state plays a crucial role in ensuring the balance of economic, social and environmental components of sustainable development of the industry. Agricultural policy pays great attention to the achievement of higher final results of production activities, both in agriculture and in all agribusiness, provides a stable rate of growth of production, contributes to its efficiency and social development of the village, protects the economic interests of representatives of the agricultural sector.

Resource provision and production potential of the agricultural sector largely determine the results of production and the economic condition of agricultural producers. The provision of agricultural enterprises with basic means of production and the efficiency of their use are important factors on which the results of economic activity depend, in particular the quality, completeness and timeliness of work, and, consequently, the volume of production, its cost, the financial condition of the organization. Therefore, in the new economic conditions it is necessary to accelerate innovation processes in agriculture. 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, training, working and living conditions of workers, the transition to intensive environmentally friendly and resource-saving technologies of agricultural production, ensuring the integration of science with production. At the same time, it is important to strictly take into account the requirements of technological, natural-biological and technological laws. Constraining factors of innovative development of agriculture are sectoral disparity of prices, technological backwardness and low competitiveness of agricultural production, lack of skilled labor, lack of financial resources, high rate of commercial credit, slow pace of implementation in the production of agricultural science and best practices. Thus, in the Russian agroindustrial complex is used no more than 5% of scientific achievements, while in the developed world more than 80% of scientific developments are commercialized.

The unsatisfactory state of the economy of the industry requires its radical modernization on the basis of innovation. In the process of innovation it is necessary to take into account the specifics of agriculture, where reproduction is based on the use of land, plants and animals, to ensure the unity of technology and biology, Economics and ecology. Here, innovative activities should be aimed at ensuring effective economic growth through the use of intensive resource-saving technologies for the production of agricultural products, biologization and greening of production processes, the preservation of soil fertility and other natural resources. Therefore, in agriculture, along with the traditional areas of innovation (technological, organizational, social) are used selection and genetic, meliorative,environmental and biotechnological areas, providing for the creation of new highly productive and environmentally resistant varieties and hybrids of agricultural plants and animal breeds, the use of resource-saving and environmentally friendly technologies of tillage and production of agricultural products, the creation of biological means for the protection of animals and plants, as well as biological products for the needs of the processing industry of agriculture.

The specificity of the application of the basic concepts of the theory of innovation to agriculture is also in the interweaving of its technological processes in the processes taking place in the natural environment, in participation in the production of living organisms, which can also be the objects of innovation. In accordance with this definition, there is a classification of innovations in the agricultural sector of the economy according to the target orientation, which is based on the specifics of internal and external interactions of the agricultural production system and contains three groups of agricultural innovations [Agola, 2016]:

– innovations that improve the objects of production processes;
– innovations that improve interaction within the agricultural production system;
– innovations that improve the interaction with the external environment of the functioning of agriculture.

Conclusion

Currently, investments in agriculture in Russia are going to restore fixed assets due to their significant natural wear and tear, so the issues of updating the active part of fixed assets largely characterize the possibility of transition to new technologies, an innovative way of development of domestic agriculture, but with the creation of a favorable investment climate by the state. Thus, in the presence of a large number of conditions that currently impede the innovative development of agriculture in Russia, with a balanced system of state support; these obstacles can be successfully overcome. Therefore, in the new economic conditions it is necessary to accelerate innovation processes in agriculture.

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Инновационная деятельность как фактор экономического развития

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Аннотация

Инновационное развитие аграрного сектора в России является одним из основных условий повышения конкурентоспособности национальной экономики на мировом рынке. В настоящее время технический, технологический, научный и управленческий уровни подавляющего числа отечественных сельхозпроизводителей не соответствуют уровню производительности труда развитых стран, таких как страны Европейского Союза или США. В связи с этим обоснованным решением является системный переход к внедрению инноваций в различных сферах отечественного сельскохозяйственного производства. В настоящее время инвестиции в сельское хозяйство России идут на восстановление основных фондов в связи с их значительным естественным износом, поэтому вопросы обновления активной части основных фондов в значительной степени характеризуют возможность перехода на новые технологии, инновационный путь развития отечественного сельского хозяйства с созданием государством благоприятного инвестиционного климата. Для обеспечения дальнейшего инновационного развития необходимо устранить определенные сложности, которые в настоящее время препятствуют инновационному развитию сельского хозяйства в России.

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Ключевые слова

Инновации, экономика, форма, структура, развитие.

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