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POSSIBILITIES OF ENSURING THE ECONOMIC EFFICIENCY OF AGRICULTURAL PRODUCTION BASED ON INNOVATION

Abstract: *The article substantiates the possibilities of ensuring economic efficiency in agriculture of the Republic of Uzbekistan on the basis of innovations. The main attention is paid to substantiating the possibility of using advanced foreign experience in the country's agriculture.*

Key words: *agriculture, innovation, investment project, economic efficiency, financing, technopark, government order, material incentives.*

Аннотация: *В статье обоснованы возможности обеспечения экономической эффективности в сельском хозяйстве Республики Узбекистан на основе инноваций. Основное внимание уделено обоснованию возможности использования передового зарубежного опыта в сельском хозяйстве страны.*

Ключевые слова: *сельское хозяйство, инновации, инвестиционный проект, экономическая эффективность, финансирование, технопарк, государственный заказ, материальное стимулирование.*

Introduction

Deepening structural changes and consistent development of agricultural production in the Action Strategy for five priority areas of development of the Republic of Uzbekistan for 2017-2021, further strengthening the country's food security, expanding the production of environmentally friendly products, significantly increasing the export potential of the agro-industrial complex. The priority area of development and reform of the agro-industrial complex is the implementation of investment projects for the construction of new processing enterprises equipped with the most modern high-tech equipment for the production of deep processing, semi-finished products and finished food and packaging products, reconstruction and modernization of existing ones are recognized [1].

In addition, in accordance with the Decree of the President of the Republic of Uzbekistan No. PP-4700 of May 1, 2020 "On additional measures to ensure food security, rational use of available resources, state support for agriculture during the coronavirus pandemic" use the available resources and opportunities in agriculture in the event of food shortages, double the harvest of food crops, obtain high yields, create new jobs in agriculture and increase interest. [2]

Analysis of the relevant literature.

The above circumstances dictate the need to ensure the economic efficiency of the country's agriculture based on innovation.

According to Schumpeter's business theory, product innovation manifests itself in:

- the use of new techniques and technologies;
- introduction of products with new functions;
- the use of new raw materials [3].

According to F. Knight's theory of uncertainty, innovations are triggered by a number of factors, as a result of which they act in conjunction with exogenous factors, such as new laws, the global external environment [4].

According to H. Neubauer, all innovations that were first introduced into the activities of enterprises and brought them real economic and social benefits can be considered as innovations [5].

The experience of economically developed countries shows that the effectiveness of innovation in agriculture and the degree of involvement of producers in innovation processes determine the success of entering the world agricultural market and the competitiveness of agricultural producers [6].

According to E. Idzhmulkina, the world's leading agricultural economies have the sixth level of technological development in terms of agriculture and technology, and its development is associated with the successful transfer of innovations to nanotechnology, biotechnology, alternative energy, new information technologies [7].

Table 1

Specific economic indicators of agriculture of the Republic of Uzbekistan

[8]

Indicators	2018 y.	2019 y.	2020 y.	Change in 2020 compared to 2018
Agricultural production, billion soums	187 425	216 283	249 754	133,3 %
Growth rate of agricultural production,%	100,2	103,3	102,8	2,6
Share of agricultural exports in total exports,%	9,4	10,4	10,5	1,1
Share of agricultural exports in total imports,%	8,1	7,8	10,2	2,1

The data in Table 1 show that in 2018-2020, the volume of agricultural production in the Republic of Uzbekistan tended to grow. In addition, agricultural production in 2020 grew at a faster pace than in 2018. This is the result of ongoing reforms in agriculture.

From the data in Table 1, it can be seen that the growth rate of agricultural production in 2019 increased significantly compared to 2018, but in 2020 this indicator decreased compared to 2019. This is because the coronavirus pandemic has negatively impacted agricultural production. However, the growth rate of agricultural production in 2020 compared to 2018 was 2.6 percentage points.

The data in Table 1 show that in 2018-2020 there is a trend towards an increase in the share of agricultural exports in the total export volume of the Republic of Uzbekistan. This is a positive development in terms of increasing the export potential of agriculture.

From the data in Table 1, it can be seen that in 2019, although the share of agricultural imports in the country's total imports decreased compared to 2018, this indicator increased in 2020 compared to 2019.

Conclusion.

In our opinion, in order to increase the economic efficiency of agriculture based on innovations, it is necessary to take the following measures:

1. It is necessary to form a technology cluster through the development of agriculture and related industries through the creation of technology parks in rural areas with relatively low incomes.

Foreign experience in the formation of technological clusters in the agricultural sector shows:

firstly, high productivity of firms based on narrow specialization included in the cluster is ensured (in today's conditions, when many operations are specialized and technologically complex, specialization in individual technological operations prevails in competition);

secondly, the opportunities for the production of innovative products in clusters will be expanded, since the scientific potential will be accumulated within the cluster, combined with the production base and provided with adequate sources of funding;

thirdly, it reduces the time of implementation of the created innovative developments in agriculture and related industries, and allows to reduce costs.

To develop the activities of companies producing innovative technologies and equipment for agriculture, it is necessary to take the following measures:

- it is necessary to introduce the practice of supporting these companies through companies financed from public funds;

- it is necessary to increase the volume of government orders for these companies;

- it is necessary to strengthen cooperation between universities and research institutes in the field of agriculture with innovative companies in the development and commercialization of innovative products.

3. To expand the scale of the introduction of modern information, communication and digital technologies in the activities of agricultural enterprises, it is necessary to introduce technologies of crowdfunding, crowdsourcing, big data and geolocation.

For information, crowdfunding is a collective collaboration of people in which people voluntarily pool their money or other resources. These funds will be used to

finance various forms of activity, including start-ups and small businesses, with the aim of investing for profit.

Huge data technology is a technology that can process very large amounts of data with high speed and accuracy.

Geolocation technology creates new opportunities for the provision of information services, taking into account the user's location. For example, satellite tracking services (GPS, GLONASS). This tracking service allows you to detect deviations from the route, misuse of transport, and control fuel costs.

Thanks to modern information and communication technologies, new types of goods and services will appear in the agricultural sector, and the speed of service provision will increase significantly.

Digital technologies make it cheaper, faster and easier to complete large-scale operations tasks without intermediaries.

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