

ISSN 2518-1483 (Online),
ISSN 2224-5227 (Print)

2019 • 2

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

БАЯНДАМАЛАРЫ

ДОКЛАДЫ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

REPORTS

OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN

PUBLISHED SINCE 1944



ALMATY, NAS RK

Бас редакторы
х.ғ.д., проф., ҚР ҰҒА академигі **М.Ж. Жұрынов**

Редакция алқасы:

Адекенов С.М. проф., академик (Қазақстан) (бас ред. орынбасары)
Величкин В.И. проф., корр.-мүшесі (Ресей)
Вольдемар Вуйцик проф. (Польша)
Гончарук В.В. проф., академик (Украина)
Гордиенко А.И. проф., академик (Белорус)
Дука Г. проф., академик (Молдова)
Илолов М.И. проф., академик (Тәжікстан),
Леска Богуслава проф. (Польша),
Локшин В.Н. проф. чл.-корр. (Қазақстан)
Нараев В.Н. проф. (Ресей)
Неклюдов И.М. проф., академик (Украина)
Нур Изура Удзир проф. (Малайзия)
Перни Стефано проф. (Ұлыбритания)
Потапов В.А. проф. (Украина)
Прокопович Полина проф. (Ұлыбритания)
Омбаев А.М. проф., корр.-мүшесі (Қазақстан)
Өтелбаев М.О. проф., академик (Қазақстан)
Садыбеков М.А. проф., корр.-мүшесі (Қазақстан)
Сатаев М.И. проф., корр.-мүшесі (Қазақстан)
Северский И.В. проф., академик (Қазақстан)
Сикорски Марек проф., (Польша)
Рамазанов Т.С. проф., академик (Қазақстан)
Такибаев Н.Ж. проф., академик (Қазақстан), бас ред. орынбасары
Харин С.Н. проф., академик (Қазақстан)
Чечин Л.М. проф., корр.-мүшесі (Қазақстан)
Харун Парлар проф. (Германия)
Энджун Гао проф. (Қытай)
Эркебаев А.Э. проф., академик (Қырғыстан)

«Қазақстан Республикасы Ұлттық ғылым академиясының баяндамалары»

ISSN 2518-1483 (Online),

ISSN 2224-5227 (Print)

Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы» Республикалық қоғамдық бірлестігі (Алматы қ.)
Қазақстан республикасының Мәдениет пен ақпарат министрлігінің Ақпарат және мұрағат комитетінде 01.06.2006 ж.
берілген №5540-Ж мерзімдік басылым тіркеуіне қойылу туралы куәлік

Мерзімділігі: жылына 6 рет.

Тиражы: 500 дана.

Редакцияның мекенжайы: 050010, Алматы қ., Шевченко көш., 28, 219 бөл., 220, тел.: 272-13-19, 272-13-18,
<http://reports-science.kz/index.php/en/archive>

© Қазақстан Республикасының Ұлттық ғылым академиясы, 2019

Типографияның мекенжайы: «Аруна» ЖК, Алматы қ., Муратбаева көш., 75.

Главный редактор
д.х.н., проф., академик НАН РК **М. Ж. Журинов**

Редакционная коллегия:

Адекенов С.М. проф., академик (Казахстан) (зам. гл. ред.)
Величкин В.И. проф., чл.-корр. (Россия)
Вольдемар Вуйцик проф. (Польша)
Гончарук В.В. проф., академик (Украина)
Гордиенко А.И. проф., академик (Беларусь)
Дука Г. проф., академик (Молдова)
Илолов М.И. проф., академик (Таджикистан),
Леска Богуслава проф. (Польша),
Локшин В.Н. проф. чл.-корр. (Казахстан)
Нараев В.Н. проф. (Россия)
Неклюдов И.М. проф., академик (Украина)
Нур Изура Удзир проф. (Малайзия)
Перни Стефано проф. (Великобритания)
Потапов В.А. проф. (Украина)
Прокопович Полина проф. (Великобритания)
Омбаев А.М. проф., чл.-корр. (Казахстан)
Отелбаев М.О. проф., академик (Казахстан)
Садыбеков М.А. проф., чл.-корр. (Казахстан)
Сатаев М.И. проф., чл.-корр. (Казахстан)
Северский И.В. проф., академик (Казахстан)
Сикорски Марек проф., (Польша)
Рамазанов Т.С. проф., академик (Казахстан)
Такибаев Н.Ж. проф., академик (Казахстан), зам. гл. ред.
Харин С.Н. проф., академик (Казахстан)
Чечин Л.М. проф., чл.-корр. (Казахстан)
Харун Парлар проф. (Германия)
Энджун Гао проф. (Китай)
Эркебаев А.Э. проф., академик (Кыргызстан)

Доклады Национальной академии наук Республики Казахстан»

ISSN 2518-1483 (Online),

ISSN 2224-5227 (Print)

Собственник: Республиканское общественное объединение «Национальная академия наук Республики Казахстан» (г. Алматы)

Свидетельство о постановке на учет периодического печатного издания в Комитете информации и архивов Министерства культуры и информации Республики Казахстан №5540-Ж, выданное 01.06.2006 г.

Периодичность: 6 раз в год.

Тираж: 500 экземпляров

Адрес редакции: 050010, г.Алматы, ул.Шевченко, 28, ком.218-220, тел. 272-13-19, 272-13-18

<http://reports-science.kz/index.php/en/archive>

©Национальная академия наук Республики Казахстан, 2019 г.

Адрес типографии: ИП «Аруна», г.Алматы, ул.Муратбаева, 75

E d i t o r i n c h i e f

doctor of chemistry, professor, academician of NAS RK **M.Zh. Zhurinov**

E d i t o r i a l b o a r d :

Adekenov S.M. prof., academician (Kazakhstan) (deputy editor in chief)**Velichkin V.I.** prof., corr. member (Russia)**Voitsik Valdemar** prof. (Poland)**Goncharuk V.V.** prof., academician (Ukraine)**Gordiyenko A.I.** prof., academician (Belarus)**Duka G.** prof., academician (Moldova)**Iolov M.I.** prof., academician (Tadjikistan),**Leska Boguslava** prof. (Poland),**Lokshin V.N.** prof., corr. member. (Kazakhstan)**Narayev V.N.** prof. (Russia)**Nekludov I.M.** prof., academician (Ukraine)**Nur Izura Udzir** prof. (Malaysia)**Perni Stephano** prof. (Great Britain)**Potapov V.A.** prof. (Ukraine)**Prokopovich Polina** prof. (Great Britain)**Ombayev A.M.** prof., corr. member. (Kazakhstan)**Otelbayv M.O.** prof., academician (Kazakhstan)**Sadybekov M.A.** prof., corr. member. (Kazakhstan)**Satayev M.I.** prof., corr. member. (Kazakhstan)**Severskiy I.V.** prof., academician (Kazakhstan)**Sikorski Marek** prof., (Poland)**Ramazanov T.S.** prof., academician (Kazakhstan)**Takibayev N.Zh.** prof., academician (Kazakhstan), deputy editor in chief**Kharin S.N.** prof., academician (Kazakhstan)**Chechin L.M.** prof., corr. member. (Kazakhstan)**Kharun Parlar** prof. (Germany)**Endzhun Gao** prof. (China)**Erkebayev A.Ye.** prof., academician (Kyrgyzstan)**Reports of the National Academy of Sciences of the Republic of Kazakhstan.**

ISSN 2224-5227

ISSN 2518-1483 (Online),

ISSN 2224-5227 (Print)

Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty)

The certificate of registration of a periodic printed publication in the Committee of Information and Archives of the Ministry of Culture and Information of the Republic of Kazakhstan N 5540-Ж, issued 01.06.2006

Periodicity: 6 times a year

Circulation: 500 copies

Editorial address: 28, Shevchenko str., of 219-220, Almaty, 050010, tel. 272-13-19, 272-13-18,

<http://reports-science.kz/index.php/en/archive>

**REPORTS OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN**

ISSN 2224-5227

<https://doi.org/10.32014/2019.2518-1483.38>

Volume 2, Number 324 (2019), 63 – 68

UDK 338.436.33 (574)

G.Zh. Abdykerova ¹, D.M. Aikupesheva ², G.I. Jempeissova ³, G.A. Baytikenova ⁴^{1,2}Kazakh Agrotechnical University of S. Seifullin, Astana;^{3,4}D. Serikbayev East Kazakhstan state technical university, Ust-Kamenogorskgizat_ab@mail.ru, dina.kz.72@mail.ru, Gulnara_Islyam@mail.ru, gbaytikenova@mail.ru**TRENDS IN THE DEVELOPMENT OF INNOVATIVE ACTIVITY
IN THE AGRO-INDUSTRIAL COMPLEX OF KAZAKHSTAN**

Abstract. Kazakhstan is the owner of reserves for the further growth of agricultural production and food, as a country with significant reserves of land suitable for farming, even taking into account adverse climatic conditions. In recent years, the situation in the agricultural production of the republic has been characterized by an increase in efficiency, the development of the food market, logistics, financial services in the village, and, as a result, several improvements in the quality of life in the village. Ensuring the innovation development of agriculture in Kazakhstan requires significant transformations of scientific and educational activities, the creation of a system for mastering the achievements of scientific and technological progress (technology transfer), optimization of the management structure and coordination of participants in the innovation process.

Keywords: agriculture, sustainable development, innovation, activity.

INTRODUCTION

New challenges in world markets lead to the need to accelerate the introduction of new technologies in agriculture. Unfortunately, in Kazakhstan, their implementation is carried out at low rates. There are no well-established mechanisms for the dissemination of advanced knowledge and agritechnologies for agricultural producers. To be more precise, one of the problems was the lack of complex technological solutions for improving the agrarian business.

In the program "Kazakhstan-2030" N.A. Nazarbayev speaks about economic growth based on a developed market economy with a high level of foreign investment.

The President stresses that our strategy is based on limited state intervention in the economy, with its active role. The state should play a significant but limited role in the economy, creating a legitimate market framework in which the private sector plays first fiddle. At the same time, the state itself should become the guarantor of a free economy. His task is to establish market rules and then enforce them, acting fairly and impartially.

MAIN PART

Worldwide, the knowledge dissemination system has become the main channel for promoting innovation in the agro-industrial sector. Practically in all leading countries of the world (USA, Canada, China, Argentina, France, Brazil - leading Extension schools), the system of knowledge dissemination operates on the basis of universities or research centers, and their financing is mainly carried out from public sources. The United States achieved the greatest progress in this area, where from 30 to 40% of the amount of funding for the agricultural science of universities is directed to the development of the Agricultural Extension knowledge system. For example, only in one University of Iowa, about \$ 70 million is allocated annually for the implementation of projects for the dissemination of knowledge, which is approximately 23.1 billion tenge, which is 55 times more than in Kazakhstan. I will note that, in comparison, this is approximately like one Almaty region. In Argentina, 30% of the budget of the operator of scientific research INTA is allocated for the operation of the Extension system. When meeting with

farmers in Argentina, our question was, what was the most important factor in the growth of agricultural productivity, they responded as follows. The growth of productivity in their farms is not connected with financial state support, but with the use of innovative technologies (both domestic and foreign) for the production of one or another agricultural product through the system of dissemination of knowledge and scientific research. A novice farmer can get a full package of services, including technological, marketing and economic information. This is the main phenomenon of agricultural efficiency in Argentina, which almost completely satisfies its own food needs, being one of the leading exporters in the world, in this country agricultural products bring about 55% of export earnings.

In most technological areas, we are very far behind developed countries. Therefore, it is necessary to develop special educational and advisory programs involving interdisciplinary expert groups for farmers in partnership with progressive foreign organizations. Universities can do this. And it is necessary to allocate funding exclusively on a competitive basis and only to those performers who will offer the best programs and which the farmers themselves will support.

In 2016–2017, the University, together with foreign partners from the United States, Canada, and China, reached an agreement to implement comprehensive programs to disseminate knowledge in the field of meat and dairy cattle breeding, aquaculture and fisheries, and meat processing. Each of them is supposed to focus on the transfer and adaptation of advanced foreign experience. However, due to lack of funding, the programs were not implemented, although interest in cooperation from foreign partners remains. When allocating the requested funding, programs can be implemented in the current year. In this matter, we hope for the support of the Ministry of Agriculture of the Republic of Kazakhstan and NPP Atameken in the framework of the budget program "Information support for agribusiness entities at no cost."

The economic importance of agriculture lies in the possibility of obtaining a synergistic effect from the development of this industry through various intersectoral links. Agriculture has multiplicative properties and in times of crisis it could become an economic locomotive of the country, allowing it to use almost unlimited reserves of GDP growth in the Republic of Kazakhstan. "The fundamentally important priority of the economic program for 2020 and the near future is the further deepening of reforms and structural reforms in agriculture, efficient use of land and water resources," the President notes. As a result of the implementation of comprehensive measures to accelerate the transition to an innovative way of agricultural development aimed at structural transformation and diversification of the industry, as well as rational use of resources, it was possible to maintain the growth trend of agricultural production at an average level of 6.2% for the period 2006–2016. In terms of agricultural production development, Kazakhstan consistently occupies a leading position among the CIS countries.

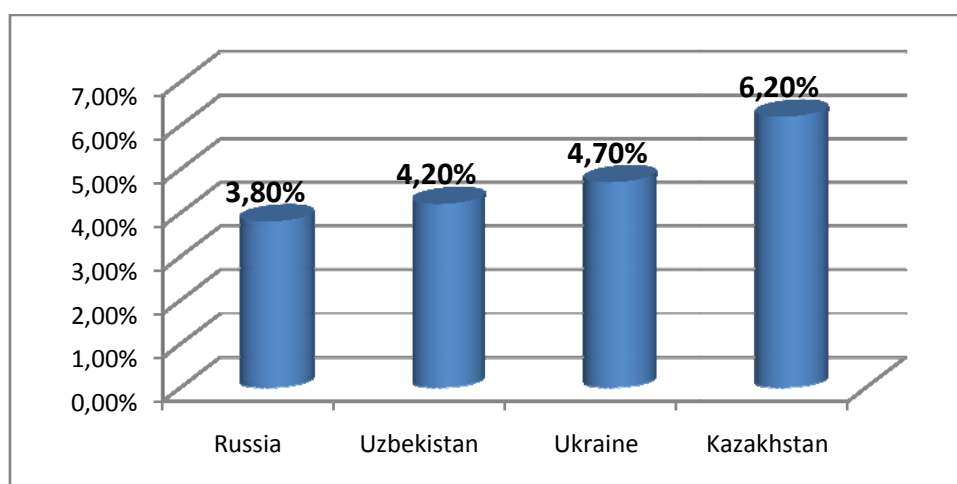


Figure 1 - Average economic development of agriculture

In 2005–2015, when the average economic development of agriculture was Russia (3.8%), Uzbekistan (4.2%) and Ukraine (4.7%), then Kazakhstan (6.2%), a stable high rate of economic

development Agriculture has taken a leading place among the countries of the CIS and the World. "The formation of the national innovation system provides for the creation and development of objects of the innovation structure, the innovation active territories, the development of a system of regional and sectoral funds to support innovation activity." Innovation in agriculture, in our opinion, should be understood as innovations affecting directly (or indirectly, within the technological chain) processes that involve people, machines and equipment, as well as elements of a biosystem (animals, plants, etc.) whose existence in the natural environment (without human participation) is impossible or possible only with the loss of basic functional characteristics.

When calculating the innovation index of the regions of Kazakhstan, the following set of factors is taken into account, illustrating the ability of regions to create innovations and their readiness to introduce them into the economy:

- the number of personnel engaged in research and development,% of the total number of people employed in the economy;
- the number of university students, 10 thousand people. population;
- the number of registered patents per 1,000 people. employed in the economy;
- costs of technological innovation, tenge. / person;
- the level of Internetization,%.

In this method, the existing statistics with a preliminary assessment of its reliability are used to the maximum. The Index of Readiness of the Regions of Kazakhstan for the Information Society is a measure of the degree of preparedness of regions for the large-scale use of information and communication technologies. The parameters of innovative development of the regions, factors considered in the rating, are divided into two groups:

- 1) factors describing the level of technological development of the region, or factors of innovation susceptibility (labor productivity, capital productivity, environmental friendliness of production);
- 2) factors of innovative activity of a region or region (expenses for research and development per employee, costs for technological innovations per employee, production of innovative products per capita).

In order to scale up the introduction of new technologies by agricultural producers, Kazakhstan should improve knowledge dissemination programs, increase the volume of consulting and educational services by distributing educational products, implementing highly specialized seminars, medium-term basic and specialized courses, introducing on a systematic basis comprehensive support for rural producers, including the use of digital technology call centers.

It is necessary to introduce the mechanism of the farmer's field school, both in animal husbandry and in plant growing, and then the scientist and the farmer will work together. Secondly, to promote the spread of innovation and technology through universities and research centers, as well as more closely link research and educational activities with business representatives. Thirdly, first you need to support financial resources, and then there will be an effect. Considering that this measure refers to the "green basket" in the WTO context, the state has the right to finance programs for the dissemination of knowledge in any amount, based on the budget possibilities. Green box measures can be applied without restrictions. They are quite clearly stated in the relevant agreements of the WTO members.

Agricultural counseling began as an application of research to agricultural practice through the training of farmers. It now carries out a wider range of functions of communication and training of the rural population by professionals from various fields, including agriculture, agricultural marketing and business research. Counseling is practiced worldwide. Usually through government agencies.

For example, consider the United States Department of Agriculture Agency - the National Institute of Agriculture and Food (IBA), created in 2008 instead of the previously existing Joint Service for Research, Education and Consultancy. This organization is designed to encourage federal-funded research and technological innovation in the field of agriculture, which will contribute to its greater productivity, environmental sustainability and efficiency, and which will attract highly competitive researchers to this area. The IBA finances basic and applied research, as well as mixed research, which can be conducted in universities, state agencies and in the private sector.

It is necessary to create an effective system of transfer and adaptation of foreign knowledge on the basis of agricultural universities, as is done in the leading countries of the world, such as the USA,

Canada, China, and to drastically improve the system of promoting innovation in agricultural production. Separate measures do not create such a system, a comprehensive, systematic approach is needed.

The modern functioning of the agrarian complex should be carried out under the influence of the economic mechanism aimed at creating scientific and technological, managerial and organizational conditions for the innovative development of the industry. The study of the mechanism under consideration allows to form the following content. The economic mechanism of innovative development of the agro-industrial complex is a system of interrelated forms and methods of organizing and stimulating R & D, business development in the scientific and technical sector of the agro-industrial complex and government support at all stages of the process based on the mutual partnership of its members to increase the socio-economic and innovative development of agricultural production. In accordance with the strategy of innovative development of the agro-industrial complex, the formation of an economic mechanism should be carried out in the following areas: the creation of regulatory and regulatory systems for innovative activity; program-target management of the development of innovation in agriculture at the regional levels; development of public-private partnership.

The study of the content of the economic mechanism of the innovative development of the agro-industrial complex makes it possible to single out in it a set of institutional, instrumental, methodical and regulatory components, each of which defines its own forms and methods of organizing and stimulating innovation in agricultural production, as well as the directions of the main tasks to be solved, including: stimulation of innovative activity of economic entities along the whole chain of agro-innovation formation; development of the potential of economic entities (innovation, technology, human resources, scientific, economic, etc.); increasing the investment attractiveness of the industry; development of infrastructure and sales markets for agricultural products. An effective option in organizing and stimulating innovation in agriculture should be the active participation of state capital on the principles of public-private partnership, which determines the use of government mechanisms to stimulate the participation of private business in the development of innovative processes, allows you to combine resources, distribute profits and risks, promotes the formation of competitive environment and at the same time - more efficient use of budget funds. The study of foreign experience shows that the process of innovative development in the agricultural sector should begin with the stimulation of research activities of sectoral research institutes by providing them with incentives, creating conditions for integrating business, universities and research centers with innovative small enterprises technical topics in the field of agriculture in the framework of national programs. The influencing role of the economic mechanism allows us to define a system of forms and methods of organizing and stimulating innovation in agriculture. The study suggests the following classification, which, unlike the existing approaches, is based on the principles of development of public and private partnerships. The introduction of new production technologies should be considered the main direction of innovative development of agriculture. Technological modernization of agriculture is a major factor in improving the efficiency of all agriculture and should be aimed at the introduction of resource-saving technologies. The successful application of conservation farming technologies in various agro-climatic conditions of the Republic of Kazakhstan confirmed their universal applicability. One of the main conditions for the successful development of resource-saving technologies is an integrated approach to managing the process of their implementation, which was developed based on foreign recommendations for the introduction of resource-saving technologies in agricultural production by adapting them to the conditions of use in agriculture of Kazakhstan and to the peculiarities of managers and specialists of dekhkan and farms.

An analysis of business investment activity conducted in 2017 showed that 90% of the largest companies in the country were not ready to present in detail the results of their innovation activities. If in the practice of economically developed foreign countries, private companies play a key role in financing research work and creating innovations, covering up to 80% of national expenditures, in Kazakhstan no more than 25% of investments in scientific and technical progress are financed by business structures.

The critical inadequacy of these figures becomes extremely clear, given that the entire amount of investments in Research and development (hereinafter referred to as R & D) in Kazakhstan in recent years amounted to just over 1% of GDP. For comparison, in the USA the share of expenditures for research work in GDP is about 2.5–2.8%, in Japan –3.3%, and Israel — 4.5%.

CONCLUSION

The negative dynamics of investment and innovation activity in the country's economy led to significant physical and moral deterioration of the production fund used - from 50 to 70% of fixed assets for production purposes need to be replaced, and the average service life of equipment in the agro-industrial complex exceeded 15 years. In this regard, it is necessary to significantly increase the budget financing of fundamental and priority applied scientific research, modernization and technical re-equipment of fixed assets to conduct research at a level not inferior to the world's best scientific laboratories.

In these conditions, the goal of the strategy of innovative development of the agro-industrial complex of the Republic of Kazakhstan for the period up to 2020 is to accelerate the growth rate of agricultural products by increasing the effective use of resource potential and product competitiveness, solving social problems in rural areas and reducing the gap in the standard of living of rural and urban populations.

Г.Ж. Абдыкерова ¹, Д.М. Айкупешева ², Г.И. Джемпеисова ³, Г.А. Байтикенова ⁴

^{1,2}С. Сейфуллин атындағы Қазақ агротехникалық университеті, Астана қ.

^{3,4}Д. Серікбаев атындағы Шығыс Қазақстан мемлекеттік техникалық университеті, Өскемен қаласы

ҚАЗАҚСТАНДА АГРОӨНЕРКӘСІП КЕШЕНІНДЕ ИННОВАЦИЯНЫҢ ҚАРҚЫНДЫ ДАМУ ТЕНДЕНЦИЯСЫ

Аннотация. Қазақстан ауылшаруашылығы өнімдері мен азық-түлік өнімдерін одан әрі өсіруге арналған резервтердің иесі болып табылады, өйткені елдегі ауылшаруашылығы үшін қолайлы жерлердің елеулі қоры бар, тіпті қолайсыз климаттық жағдайларды ескере отырып. Соңғы жылдары республиканың ауыл шаруашылық өндірісіндегі жағдай ауыл шаруашылығындағы тиімділіктің артуымен, азық-түлік нарығын дамытумен, логистикамен, ауылдағы қаржылық қызметтермен, нәтижесінде ауылдағы өмір сапасының жақсаруымен сипатталды. Қазақстандағы ауыл шаруашылығының инновациялық дамуын қамтамасыз ету ғылыми және білім беру ісінің маңызды өзгерістерін, ғылыми-техникалық прогресті (технологияларды беру) жетістіктерін меңгеру, басқару құрылымын оңтайландыру және инновациялық процеске қатысушылардың үйлестіру жүйесін құруды талап етеді.

Түйін сөздер: ауыл шаруашылығы, тұрақты даму, инновация, белсенділік

Г.Ж. Абдыкерова ¹, Д.М. Айкупешева ², Г.И. Джемпеисова ³, Г.А. Байтикенова ⁴

^{1,2}Казахский агротехнический университет им. С. Сейфуллина, г. Астана;

^{3,4}Восточно-Казахстанский государственный технический университет им. Д. Серикбаева,
г. Усть-Каменогорск

ТЕНДЕНЦИИ РАЗВИТИЯ ИННОВАЦИОННОЙ АКТИВНОСТИ В АГРОПРОМЫШЛЕННОМ КОМПЛЕКСЕ КАЗАХСТАНА

Аннотация. Казахстан является обладателем резервов дальнейшего роста производства сельскохозяйственной продукции и продовольствия, как страна, имеющая значительные запасы земель, пригодных для земледелия, даже с учетом неблагоприятных климатических условий. В последние годы ситуация в сельскохозяйственном производстве республики характеризуется ростом эффективности, развитием продовольственного рынка, материально-технических, финансовых услуг на селе, и, как следствие, несколько улучшением качества жизни на селе. Обеспечение инновационного развития сельского хозяйства Казахстана требует значительных преобразований научной и образовательной деятельности, создания системы освоения достижений научно-технического прогресса (трансфера технологий), оптимизации управленческой структуры и координации участников инновационного процесса.

Ключевые слова: сельское хозяйство, устойчивое развитие, инновации, активность

Сведения об авторах:

Абдыкерова ГизатЖанарбековна - Кандидат технических наук, Казахский агротехнический университет им. С. Сейфуллина, г. Астана, gizat_ab@mail.ru, <https://orcid.org/0000-0001-9797-7245>;

Айкупешева Дина Маликаждаровна - Казахский агротехнический университет им. С. Сейфуллина, г. Астана, кандидат экономических наук, dina.kz.72@mail.ru, <https://orcid.org/0000-0002-7233-0493>;

Джемпеисова Гульнара Ислямовна - кандидат экономических наук, Восточно-Казахстанский государственный технический университет им. Д. Серикбаева, г. Усть-Каменогорск, Gulnara_Islyam@mail.ru, <https://orcid.org/0000-0002-7411-3302>;

Байтикенова Гульжан Альпековна - магистр экономических наук, Восточно-Казахстанский государственный технический университет им. Д. Серикбаева, г. Усть-Каменогорск, gbaytikenova@mail.ru, <https://orcid.org/0000-0001-7812-4968>

REFERENCES

- [1] Strategy RK «Kazakhstan - 2030».
- [2] Development strategy of the joint-stock company KazAgro National Management Holding for 2011–2020 / Approved by the Government of the Republic of Kazakhstan Decree No. 52 of January 31, 2011. - [ER]. Access mode: <http://adilet.zan.kz>.
- [3] Baranova OA, Tuskov A.A. The system of state incentives for innovation in the agro-industrial complex [Electronic resource] // Modern problems of science and education. - 2012. № 6. URL: www.science-education.ru/106-7722 (appeal date: 08.11.2014)
- [4] Golichenko O.G. The main factors for the development of a national innovation system: lessons for Russia / Central Economics and Mathematics Institute of the Russian Academy of Sciences. - М.: Science, 2011. - 634 p.
- [5] Dokholyan SV. Innovative approaches to improving the efficiency of using the resource potential of the agro-industrial complex / S.V. Dokholyan, Yu.D. Umavov // Quarterly Scientific and Practical Journal Problems of the Development of the AIC of the Region. - 2011. - № 4 (8). - С. 73-76.
- [6] Shakulikova G.T., Zhansagimova A.E. Agro-industrial integration in foreign countries. Actual issues of modern science and education materials of the international scientific-practical conference issue 16 volume 1 Kirov 2017. pp.161-167
- [7] Zhansagimova A.E., Rey I.Yu, Karabaeva R.K. How to develop tourism in Kazakhstan? Economics and Statistics: Quarterly Scientific Information Magazine of the Agency of the Republic of Kazakhstan on Statistics. -Astana, 2014.-№ 3. –С.45-50 ISBN 978-1-921095-72-6.
- [8] Niyazbekova S.U. Place and role of the state in the economic security of the country. In the collection: Accounting and analytical support - an information basis for the economic security of economic entities. Interuniversity collection of scientific papers and results of joint research projects: in 2 parts. Moscow, 2017. pp. 256-260.
- [9] Moldakenova E.K., Baygabulova K.K., Onaeva B.T. Ways of development of the system of the regional aspect of managing innovative processes in the APC... N E W S OF THE NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF KAZAKHSTAN SERIES OF SOCIAL AND HUMAN SCIENCES ISSN 2224-5294 Volume 6, Number 322 (2018), 203 – 208. <https://doi.org/10.32014/2018.2224-5294.54>
- [10] Kul'baevaZh.T. Formation of the social economy in Kazakhstan: theory, methodology, mechanism of formation. BULLETIN OF NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF KAZAKHSTAN ISSN 1991-3494 Volume 6, Number 376 (2018), 153 – 157 <https://doi.org/10.32014/2018.2518-1467.39>

**Publication Ethics and Publication Malpractice
in the journals of the National Academy of Sciences of the Republic of Kazakhstan**

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the originality detection service Cross Check <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

www.nauka-nanrk.kz

ISSN 2518-1483 (Online), ISSN 2224-5227 (Print)

<http://reports-science.kz/index.php/en/archive>

Редакторы *М. С. Ахметова, Т.А. Апендиев, Д.С. Аленов*
Верстка на компьютере *А.М. Кульгинбаевой*

Подписано в печать 12.04.2019.
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
12,8 п.л. Тираж 500. Заказ 2.