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ЕКОНОМІЧНИЙ ЗМІСТ ІННОВАЦІЙ ТА ПРИНЦИПИ ЇХ РЕАЛІЗАЦІЇ У СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВАХ

Халатур О. В.

Предмет дослідження – економічний зміст інновацій сільського господарства.

Метою дослідження є розгляд економічної сутності інновацій, окреслення проблем розвитку інноваційної діяльності сільськогосподарських підприємств.

Методи дослідження. У статті застосовано сукупність наукових методів наукового дослідження. При написанні статті були використані наступні методи дослідження: логічного узагальнення – для

оцінки тенденцій формування економічного змісту інновацій сільськогосподарських підприємств, а також при формуванні механізму управління інноваційним процесом сільськогосподарського підприємства; діалектичний та історичний – при дослідженні наукових підходів до формування економічного змісту інновацій суб'єкта господарювання, узагальненні зарубіжного досвіду забезпечення бізнесу та виокремленні концептуальних підходів до врахування впливу загроз на інноваційну діяльність сільськогосподарського підприємства;

Результати роботи. Виклики сучасності здійснюють тиск на сільське господарство: зростання чисельності населення, наслідки зміни клімату, необхідність зменшити викиди парникових газів у сільському господарстві, розвиток економіки і зростаюча нестабільність, пов'язана з землею, дефіцитом води та енергії. Цей сценарій підвищує критичну роль інновацій, щоб зробити сільське господарство більш конкурентоспроможною та стійкою галуззю. У статті розкривається економічний зміст інновацій як категорії економіки та особливості функціонування інновацій в сільськогосподарських підприємствах України, а також наводиться авторське визначення терміну «інновація». Розглянуто основні особливості інноваційного процесу.

Галузь застосування результатів. Результати цього дослідження можуть бути застосовані у практиці фінансово-господарської діяльності сільськогосподарських підприємств.

Висновки Проведений нами аналіз фахових літературних джерел та наукове узагальнення наявних поглядів щодо розкриття економічного змісту терміна «інновації» дозволили констатувати, що, по-перше, відсутнє загальноприйняте трактування, яке б охоплювало його найбільш суттєві якісні характеристики, по-друге, основні дискусії з цього питання концентруються переважно на трьох концептуальних напрямках. Визначаючи специфічні особливості доведення інновацій до споживача, прийнято говорити про інноваційну діяльність або інноваційний процес як про процес перетворення знання в інновацію, що проходить наступні стадії: «наука – техніка – виробництво – споживання». Так основною умовою ефективного функціонування сільськогосподарського виробництва є розширене відтворення, яке відбувається у взаємодії економічних і природно-біологічних процесів. Тому при управлінні інноваціями потрібно враховувати вимоги не тільки економічних законів, а й законів природи: рівнозначності, незамінності та сукупності життєвих чинників, законів мінімуму, оптимуму й максимуму.

Ключові слова: інноваційний розвиток, інноваційний процес, сільське господарство, концепція.

ЭКОНОМИЧЕСКОЕ СОДЕРЖАНИЕ ИННОВАЦИЙ И ПРИНЦИПЫ ИХ РЕАЛИЗАЦИИ В СЕЛЬСКОХОЗЯЙСТВЕННЫХ ПРЕДПРИЯТИЯХ

Халатур А. В.

Предмет исследования - экономическое содержание инноваций сельского хозяйства.

Целью исследования является рассмотрение экономической сущности инноваций, определение проблем развития инновационной деятельности сельскохозяйственных предприятий.

Методы исследования. В статье применена совокупность научных методов научного исследования. При написании статьи были использованы следующие методы исследования: логического обобщения - для оценки тенденций формирования экономического содержания инноваций сельскохозяйственных предприятий, а также при формировании механизма управления инновационным процессом сельскохозяйственного предприятия; диалектический и исторический - при исследовании научных подходов к формированию экономического содержания инноваций предприятия, обобщении зарубежного опыта обеспечения бизнеса и выделении концептуальных подходов к учету влияния угроз на инновационную деятельность сельскохозяйственного предприятия;

Результаты работы. Вызовы современности оказывают давление на сельское хозяйство: рост численности населения, последствия изменения климата, необходимость уменьшить выбросы парниковых газов в сельском хозяйстве, развитие экономики и растущая нестабильность, связанная с землей, дефицитом воды и энергии. Этот сценарий повышает критическую роль инноваций, чтобы сделать сельское хозяйство более конкурентоспособной и устойчивой отраслью. В статье раскрывается экономическое содержание инноваций как категории экономики и особенности функционирования инновационной в сельскохозяйственных предприятиях Украины, а также приводится авторское определение термина «инновация». Рассмотрены основные особенности инновационного процесса.

Область применения результатов. Результаты этого исследования могут быть применены в практике финансово-хозяйственной деятельности сельскохозяйственных предприятий.

Выводы Проведенный нами анализ профессиональных литературных источников и научное обобщение имеющихся взглядов по раскрытию экономического содержания термина «инновации» позволили констатировать, что, во-первых, отсутствует общепринятое трактовки, которое бы охватывало его наиболее существенные качественные характеристики, во-вторых, основные дискуссии по этому вопросу концентрируются преимущественно на трех концептуальных направлениях. Определяя специфические особенности доказывания инноваций к потребителю, принято говорить об инновационной деятельности или инновационный процесс как о процессе преобразования знания в инновацию, проходит следующие стадии: «наука - техника - производство - потребление». Так основным условием эффективного функционирования сельскохозяйственного

производства является расширенное воспроизводство, которое происходит во взаимодействии экономических и естественно-биологических процессов. Поэтому при управлении инновациями нужно учитывать требования не только экономических законов, но и законов природы: равнозначности, незаменимости и совокупности жизненных факторов, законов минимума, оптимума и максимума.

Ключевые слова: инновационное развитие, инновационный процесс, сельское хозяйство, концепция.

ECONOMIC CONTENT OF INNOVATIONS AND THE PRINCIPLES OF THEIR IMPLEMENTATION IN AGRICULTURAL ENTERPRISES

Khalatur O. V.

Subject of research is the economic content of innovation in agriculture.

Purpose of the study is to consider the economic essence of innovation, outline the problems of the development of innovative activities of agricultural enterprises.

Methods of research. The article uses a set of scientific methods of scientific research. The following research methods were used to write the article: logical generalization - to assess trends in the formation of the economic content of innovations in agricultural enterprises, as well as in the formation of a mechanism for managing the innovative process of an agricultural enterprise; dialectical and historical - in the study of scientific approaches to the formation of the economic content of innovations of the subject of economic activity, the generalization of foreign experience in securing business and the identification of conceptual approaches to taking into account the impact of threats on the innovative activities of the agricultural enterprise;

Results of research. Challenges of modern times exert pressure on agriculture: population growth, the effects of climate change, the need to reduce greenhouse gas emissions in agriculture, economic development and the growing instability associated with land, water and energy shortages. This scenario enhances the critical role of innovation to make agriculture a more competitive and sustainable industry. The article reveals the economic content of innovations as a category of economy and features of the functioning of innovations in agricultural enterprises of Ukraine, as well as the author's definition of the term «innovation». The main features of the innovation process are considered.

Application of results. The results of this study can be applied in the practice of financial and economic activity of agricultural enterprises.

Conclusions. Our analysis of professional literary sources and the scientific generalization of the existing views on the disclosure of the economic content of the term «innovation» have allowed us to state that, first, there is no conventional interpretation that would cover its most significant qualitative characteristics, and secondly, the main discussions of this issues focus mainly on three conceptual directions. Determining the specific features of bringing innovation to the consumer, it is customary to talk about innovation activity or innovation process as a process of transforming knowledge into innovation, passing the following stages: «science - technology - production - consumption». So the basic condition for the effective functioning of agricultural production is the expanded reproduction that occurs in the interaction of economic and natural-biological processes. Therefore, in the management of innovations need to take into account the requirements not only economic laws, but also the laws of nature: equivalence, indispensability and a combination of life factors, laws of minimum, optimum and maximum.

Key words: innovative development, innovation process, agriculture, concept.

JEL Classification: O31, Q16

Topicality. It is generally acknowledged that innovation is a guarantee of economic growth. Innovation activities generally consist of fundamental research and applied research. The basis of the economy is the creation of new ideas, theories and prototypes. Without immediate commercial use, applied researches commercialize this knowledge by developing a design of new products and technologies. Thus, the commercialization of basic research through applied research is associated with significant time lags and often requires the active involvement of the inventor.

The degree of this problem study by scientists. Analysis of theoretical researches within the framework of the economic content of innovations, made up of a progressive scientific base, consisting of the right of foreign and domestic scientists. Thus, the main theoretical and methodological provisions relating to the identification of the significance and meaning of innovations in the work of scientists: J. Schumpeter, B. Santo, F. Nixon, P. A. Fatkhutdinova, V. I. Zakharchenko, N. M. Korsikova, M. M. Merkulova, T. G. Dudara and others. Research issues of modern problems of innovation realization in agriculture: I. I. Vinichenko, P. A. Laiko, M. F. Babiyenko, P. M. Musica, S. V. Stepova, A. V. Shumsky et al.

Despite the significant amount of research in the innovation field and the implementation of innovations, scientific literature does not have a place of different content levels. In particular, further clarification of the definition of principles and factors for the implementation of innovations in agricultural enterprises.

The purpose of the article is to consider the economic essence of innovation, outline the problems of the innovation activity development in agricultural enterprises.

Research results.

According to B. Santo, innovation is a socio-technical and economic process, which, through the practical use of ideas and inventions, leads to the creation of the best in their qualities of products, technologies and generates profit (in the case when innovation is oriented towards economic profit), its appearance on the market can bring additional income [9, p. 14].

As you know, the term «innovation» preceded the notion of «new combinations» introduced by J. Schumpeter and proposed by him in the «Theory of Economic Development», and only since the 20-ies of the last century, the concept of «innovation» in economic theory has become modern interpretation. J. Schumpeter treats innovation as a new scientific and organizational combination of production factors created by entrepreneurial spirit. It was J. Schumpeter for the first time introduced into the scientific lexicon the term «innovation», which in literal translation means «the embodiment of scientific discovery, technical invention in new technology or a new type of product.» In addition, innovation was considered by J. Schumpeter as a new function of production, «a new combination of it» [13, p. 17]. R.A. Fatkhutdinov defines innovation as the final result of the introduction of innovations with the goal of changing the object of control and obtaining economic, social, environmental, scientific and technical or other kind of effect [12, p. 16].

In the scientific studies of domestic economists, the idea that innovations are technical, organizational, economic, managerial changes, which have a positive impact on the company in order to receive profit on the basis of satisfying social needs, prevails. Innovation is a positive change in the status of an object, this is what ensures the process of positive changes in the enterprise, as well as a means of practical use in the reproduction process [11, p. 12]. The analysis of the above definitions shows that under the term «innovation» some authors understand the objects of implementation, others - a process that leads to the appearance of something new - innovations to obtain a certain type of effect.

In the economic literature it is determined that innovations in the agro-industrial complex (in particular, in agriculture) are, on the one hand, the process of research, development and distribution of new types of products, new technologies, organizational forms and marketing methods in the agro-industrial complex, and on the other hand, the materialized result of this process, expressed in the change of the entire economic mechanism of the agricultural enterprise, the transition to a new state, which allows the company to improve the efficiency of their activities for help goy to improve the competitiveness of products [1, p. 49].

Our own research, literature analysis [3; 4; 5, c. 56-59; 29, c. 77-79; 17; 18] allowed a sufficiently large number of definitions of the word «innovation». In modern literature, two approaches to the definition of the concept of «innovation» are common: 1) static, where innovation acts as «innovation-product» when it is presented as the result of an innovation process in the form of new technology (products), technology, a new method implemented on the market; 2) dynamic, where innovation acts as an «innovation-process», when the process involves research, design, development, production organization, commercialization and distribution of new products, technologies, and principles instead of existing ones [7].

But in our opinion, taking into account the Schumpeter theory, innovation can be interpreted in three aspects: innovation in the broad sense - as any changes that ensure sustainable development of the country as a whole and increase the competitiveness of economic entities; innovation in a narrower sense - as a process of transforming scientific achievements into production; innovation in the narrow sense - as some product, or the result introduced in the economic practice of business entities. Consequently, without contradicting static and dynamic approaches and considering innovation as a change, both as a single act and as a process, since each approach has its own meaning in understanding the essence of innovation as a special phenomenon of the reproduction process, we propose our own interpretation of the concept of «innovation»: this the final result of the process of introducing innovations that are aimed at a qualitative transformation of both productive and non-productive sectors in order to obtain a certain benefit: increase profitability of production, reduce enterprise costs, increase labor productivity, welfare workers, and yield economic, scientific, technological, social impact of the introduction of scientific research. At the same time, in any definition of the meaning of the word «innovation» should take into account its general orientation to ensure social progress, increase the level of efficiency and profitability of production, improvement of economic and social relations in society.

And when determining the specific features of bringing innovation to the consumer, it is customary to talk about innovation activity or the innovation process as a process of transformation of knowledge into innovation, passing the following stages: «science - technology - production - consumption». So the basic condition for the effective functioning of agricultural production is the expanded reproduction that occurs in the interaction of economic and natural-biological processes. Therefore, in the management of innovations need to take into account the requirements not only economic laws, but also the laws of nature: equivalence, indispensability and a combination of life factors, laws of minimum, optimum and maximum.

Another feature of effective agricultural production is that here along with the industrial means of production active participation in the reproduction process is taken by living organisms - animals and plants. Their development is subject to the action of natural laws and depends on such natural factors as climate, weather, heat, moisture, light and food. [10, p. 29-30]. Thus, the innovative process in the agrarian sector is a constant flow of transformation and implementation in the economic practice of the results of research and development in the form of new varieties of plants, breeds and species of animals and crossbreds of birds, new or improved foodstuffs, materials, new technologies in crop production, livestock and processing industry, new fertilizers and plant protection products and animals, new methods of prevention and treatment of animals and poultry, new forms of organization and management of various spheres of the economy, new approaches ing to social services that improve production efficiency.

Our analysis of professional literary sources and the scientific synthesis of existing views on the disclosure of the economic content of the term «innovation» have made it possible to state that, first, there is no generally accepted interpretation that would cover its most significant qualitative characteristics, and secondly, the main discussions on this issue concentrate mainly on three conceptual directions. The first of them focuses on the fact that innovation is an economic process, on the one hand, the replacement of existing technologies with new ones and, on the other hand, the integration of new or substantially changed technologies, methods and methods of production, the basic principles

and principles of its organization in order to increase its effectiveness and efficiency of activity. This approach is inherent in the economic characteristics of innovation by J. Schumpeter. He considered them as a constitutive essential element and a necessary condition for economic development, which is manifested in certain combinations of changes in order to introduce and use new consumer goods, new production, vehicles, markets and forms of organization of production in industry [13, p. 176]. Domestic researchers I. I. Vinichenko and I. V. Kosmidailo interpreted innovations as the ability to transform scientific and technological progress into new technologies and modern products [2; 8].

Ukrainian legislation also defines innovations from the point of view of this approach as «newly created (applied) and (or) improved competitive technologies, products or services, as well as organizational, technical, industrial, administrative, commercial or other considerations that significantly improve the structure and quality of production and (or) social sphere» [6]. Such a definition is the basis of legal norms and other components of national innovation legislation, which contains, in addition to the Law of Ukraine «On Innovation Activity», the following normative and legal documents, such as the Constitution of Ukraine, the Law of Ukraine «On scientific and technical activity», the Law of Ukraine « On investment activity », the Law of Ukraine» On priority areas of the innovation activities development in Ukraine «, the Law of Ukraine» On the special regime of innovative activities of technology parks», the Commercial Code and other normative acts that define the regulatory, organizational and economic principles of science, technology and innovation activities in Ukraine.

According to international standards, innovation is defined as the final result of innovation activity, which has been realized as a new or improved product introduced in the market, a new or improved technological process that has found use in practice.

In fig. 1 it is shown how scientists interpret the economic content of innovation in agriculture.

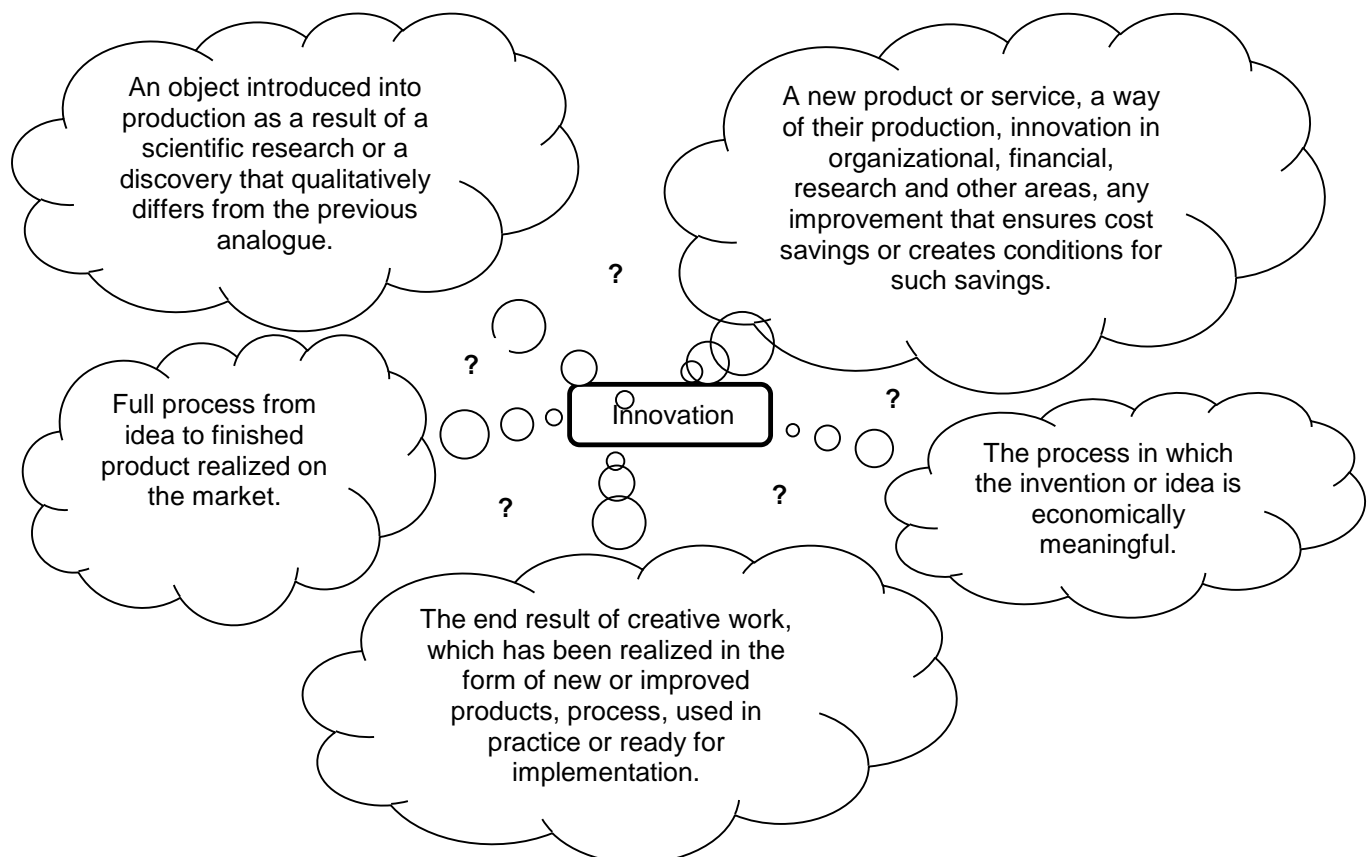


Figure 1. Interaction of scientists with economical content of innovations in agriculture

On the basis of the analysis, taking into account the purpose of the study, summing up the above definitions, an advanced definition is proposed, innovation is a positive change, the final result of the purposeful creative (intellectual activity), represented in the form of a new idea, a new product, production-technological or organizational-management technology, which in the future go through the stages of implementation, commercialization and practical application for increasing the competitiveness and economic efficiency of production and.

The terms «innovation» and «innovation process» are similar, but not unambiguous. Innovation process is associated with the creation, development and dissemination of innovations. Creators of innovation (innovators) are guided by such criteria as product life cycle and cost-effectiveness [1; 2]. Their strategy is to outperform competitors by creating innovations that will be recognized as unique in a particular field. Indispensable properties of innovation are the scientific and technical novelty and industrial suitability. Consequently, scientific and technological innovations must: have novelty, meet market demand, bring profit to the producer. The spread of innovations, as well as their

creation, is an integral part of the innovation process [4]. There are three logical forms of the innovation process: simple internal-organizational (natural), simple inter-organizational (commodity) and extended.

The internal-organizational innovation process involves the creation and use of innovations within the same organization, the innovation in this case does not take directly commodity form. With a simple innovation process, the innovation acts as a subject of sale. This form of innovation process means the separation of the function of the creator and the innovator from the function of his consumer. The advanced innovation process is manifested in the creation of new producers of innovations, in violation of the manufacturer's monopoly, which promotes through mutual competition the improvement of consumer properties of the product being produced.

Figure 2. The main components of the innovation process of agricultural enterprises

Innovation is a new idea, new knowledge	It is a result of completed scientific research (fundamental and applied), research and development, other scientific and technological achievements. New ideas can take the form of discoveries, rationalization proposals, concepts, techniques, instructions, etc.
Innovation is something new	It is a result of introducing new knowledge, its implementation in new or improved products, or in a new or improved technological process used in practice.
Diffusion of innovation	It is a process of dissemination of already mastered, implemented innovations, that is, the use of innovative products, services, technologies, in new places and conditions. The shape and speed of this process depends on the structure and power of the communication channels, the ability of economic actors to respond quickly to changes.

The innovation process is complex and heterogeneous, formed by different actors such as universities, enterprises, governments, and most importantly, actual drivers of innovation - scientists themselves and industry researchers. Consider the main features of the innovation process. First, the innovation process is characterized by a strict hierarchy between fundamental research and applied research. Secondly, the innovation process is characterized by the presence of a two-way movement between basic research and applied research.

These data may be important for theoretical and empirical research of the innovation process. Models of growth should accept the hierarchy and the interdependence of fundamental research and applied research, taking into account, in the modeling of the innovation process, its consequences for long-term growth, while the empirical analysis should maintain the complementarity associated with different knowledge.

Challenges of modern times exert pressure on agriculture: population growth, the effects of climate change, the need to reduce greenhouse gas emissions in agriculture, the rapid economic development and the growing instability associated with land, water and energy shortages. This scenario enhances the critical role of innovation to make agriculture a more competitive and sustainable industry.

The innovation process is mainly within the framework of «innovative systems» of organizations, private and public stakeholders, which are interrelated and have the technical, commercial and financial competencies and necessary resources to innovate. The government plays a fundamental role in providing the economic, social and institutional conditions that promote innovation:

- Provision of innovators with resources (finance, services and knowledge), creation of the appropriate support system;
- Removing regulatory barriers, including legal, trade, management and investment barriers;
- Strengthening human resources through an effective education system that includes all levels of education (from primary to higher education) and vocational training;
- Facilitating research and access to updated information through effective research policies that encourage more research and development investment, and the ability to create effective links between creators and users of knowledge.

Innovation in agriculture is a catalyst for growth and change. Promoting innovation is vital for tackling the challenges of agriculture and territorial development, adapting to climate change, improving food security and quality of life for people. Some key elements can contribute to a better understanding of the concept of innovation in agricultural enterprises: the definition, types of innovations, people who implement them and their goals.

Innovation is the realization of something new or improved in products (goods or services), processes, marketing or organizational methods. In other words, it means applying ideas, knowledge or practices that are new to a specific context in order to create positive changes that will provide a way to meet the needs, take calls or use opportunities. Such new items and useful changes can be substantial (big changes or improvements) or cumulative (small changes that together produce a significant improvement).

Innovations can be classified using several methods. Some are used in certain specific contexts, including in agriculture:

1) institutional innovations. These are innovations that lead to changes in policies, standards, rules, processes, transactions, models, organizational practices, institutional practices or relationships with other organizations, as creating a more dynamic environment that encourages improvements in the performance of an institution or system, making it more interactive and competitive..

2) technological innovations. It is the application of new ideas, scientific know-how or technological practice for the development, production and sale of new or improved goods or services, to reorganize or improve production processes or to substantially improve services. Technological innovations are usually associated with changes in products or production processes; but technological innovations can also be applied to marketing processes, forms of organization of financial and economic activity by producers or institutions.

3) social innovation. This is the development or significant improvement of strategies, concepts, ideas, organizations, goods or services to make positive changes by responding to social needs or social goals. Social innovation is being created jointly by several different stakeholders for the welfare of individuals or communities; they can generate employment, consumption, introduction of other changes to improve the quality of life of people.

Other classification systems are more general and can be used more widely. For example: 1) Product innovation: changes or additions to manufactured goods or services; 2) innovation process: changes in the method of production of goods or services; 3) marketing innovation: changes in the methods or conditions of marketing, changes in the location of goods or services; 4) organizational innovations: changes in the organization of activities, organization of processes and methods, organization of relations with other stakeholders (for example, partnerships).

Innovations can also be classified according to the performers: 1) entrepreneur: these innovations can be implemented equally by small producers or large companies. Such innovators can make changes to products, processes, marketing or organization to provide economic, social or environmental improvements; 2) organizational or institutional: these changes are made by various types of organizations, institutions or associations, public, private, academic or non-governmental. They can also be introduced by national innovation systems. Again, these innovations can relate to products, processes, marketing, or organizations for various purposes

Consider an agricultural innovation system. The concept of innovation systems is broadly understood and can include a wide range of sectors, including research, extensions and other functions that promote or innovate. This system approach, unlike the traditional linear model, is interactive, that is, holistic knowledge flows spread among different participants. An innovative system is created from a wide range of public and private organizations, firms and individuals, knowledge of supply and demand, technical, commercial and financial competencies. It also includes rules and mechanisms through which different stakeholders interact and interlink with each other socially, politically, economically and institutionally.

Investments in agrarian science and technology, usually in the form of research and auxiliary services, are very valuable for increasing crop yields and reducing rural poverty. However, such investments must reflect all the different sides of the knowledge needs. The effectiveness of innovation systems depends on the interaction between different people and institutions responsible for the creation and dissemination of knowledge to stakeholders, learning processes and the creation of an innovative environment.

Conclusions and perspectives of further research. The development of innovation in agriculture should be considered as a special field of activity associated with the management and organization of production in conjunction with the production and technological methods of farming. At the same time, the effect of the principles of maintaining the branches of plant growing, livestock farming, the formation of industrial and social infrastructure, cannot be undermined, that is, it is appropriate to consider the innovation process from the standpoint of the system approach, in the study of factors that affect the efficiency of agricultural production. It should be noted that innovation in agriculture may not be realized or have negative consequences. A mathematical assessment of the implications of introducing innovations for agricultural enterprises is the direction of our further research.

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