

UDC 330.341.1

PECULIARITIES OF INNOVATIONS IN THE AGRICULTURAL SECTOR OF ECONOMY OF UKRAINE

ALIAKSANDR DUDNUK, DZMITRO POLISCHUK

Kharkov Petro Vasylenko State Technical University of Agriculture, Ukraine

The article reveals the theoretical essence of innovation as an economic category and its peculiarities of its functioning in the agrarian sector of the Ukrainian economy, as well as the author's definition of the terms "innovation", "agronomy".

Introduction. World agriculture is moving towards increasing knowledge-based products. This is particularly evident in the example of economically developed countries, which, by maintaining the balance of the domestic food market on demand and supply, solving the problem of penetrating leading global markets, introducing innovations that promote modernization and restructuring of the country's economy, increase of competitiveness and efficiency of production.

The market transformations of the agrarian sector of Ukraine's economy necessitate the formation of a complex multilevel economic system capable of adjusting to conditions that are objectively drawn up and constantly being modified both within the agrarian sector and in other sectors of the national economy. Therefore, it is necessary for Ukraine to set and consistently solve the problems of innovative development of the agrarian sub complex.

Task formulation. The aim of the study is to clarify the essence and features of agrarian innovations and to identify the priority directions of innovative development of the agrarian sector of the Ukrainian economy.

Methods of research. The following groups of general scientific methods of cognition are used in the article: methods of empirical research - observation and comparison; methods applied at the empirical and theoretical levels of research - analysis, synthesis and methods of theoretical research.

Results, their discussion and perspectives. The study of domestic and foreign professional sources has shown that the innovative development of any branch of the national economy envisages, first of all, the creation of conditions for positive trends in economic dynamics, which ensures the creation and implementation of innovations. The English word "innovation" corresponds to the Ukrainian "introduction of a new" or "introduction of innovations". From this it follows that the practical use of innovations from the moment of its production and distribution as new products or services is an innovation (innovation) [1-2].

The analysis of the literature allowed for a sufficiently large number of definitions of the word "innovation". 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 interpretative.

In modern literature, two approaches to the definition of "innovation" are commonly used:

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 in 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 [3].

But, in our view, taking into account the Schumpeter's theory, innovation can be interpreted in three respects:

- 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 more narrow sense - as a process of transformation of scientific achievements into production;

- innovation in the narrow sense - as some product, or result, introduced in the economic practice of business entities [4].

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:

Economics

increase profitability of production, reduce enterprise costs, increase in output ktyvnosti labor, 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 defining the specific features of bringing innovation to the consumer, it is customary to talk about innovation activity or innovation process as a process of transformation of knowledge into innovation, passing the following stages: "science - technology - production - consumption".

The basic condition for the effective functioning of agricultural production is the expanded reproduction, which takes place 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.

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 to social services that improve efficiency [5].

Innovation processes in the agrarian sector of the economy have their own specifics. They are characterized by the presence of regional, sectoral, functional, technological and organizational features. An analysis of the conditions and factors that influence the innovative development of agriculture, has allowed them to be divided into negative ones (those that restrain innovative development) and positive ones (those that promote acceleration of innovation processes).

The conditions and factors contributing to the innovative development of agricultural production are the transition to a market economy, the availability of natural resources, significant scientific and educational potential, capacious domestic food market, the ability to produce environmentally safe, natural food products.

As a negative condition, the weakening of the scientific potential of agrarian science, the peculiarity of approaches and methods to the management of innovative production processes, the need to combine different types of innovations, and the strengthening of the role of the state in stimulating and promoting innovation, a high level of risk of innovation processes in the agricultural sector, should be called. The conditions and factors hindering the development of innovations in the agrarian sector of the economy include compression of domestic demand for food, reduction of state support to the agrarian sector and state financing of scientific and technical programs, underdeveloped lending and high lending rates, lack of innovation infrastructure and state innovation policies and strategies, insufficient level of personnel training in the field of innovation management.

In crop production, innovative processes should be aimed at increasing volumes of produced crop products on the basis of increasing soil fertility, growing crop yields and improving product quality; overcoming the processes of degradation and destruction of the natural environment and ecologization of production; reducing energy costs and reducing the dependence of plant productivity on natural factors; increasing the use of irrigated and drained lands; saving labor and material costs; preservation and improvement of ecology.

In connection with this, the innovation policy in the field of plant growing should be based on the improvement of selection methods - the creation of new varieties of agricultural crops with high productive potential, the development of scientifically sound systems of agriculture and seed production. In today's conditions, the loss of livestock development and the sharp decline in livestock production volumes to increase the production potential of the industry is important for the use of physiological and biological innovations, the achievements of domestic and world breeding, which reflect the most important directions of improvement of breeding genetic potential, on which the level of productivity of animals directly depends, efficient use of feed resources, development of resource-saving technologies, aimed at raising the level the intensity and efficiency of production.

One of the main areas of innovation in livestock breeding is biotechnological animal breeding systems using genetic and cellular engineering techniques aimed at the creation and use of new types of transgenic animals with improved performance, resistant to disease. Equally important in the development of the innovation process in livestock belongs to technological innovations that are associated with the industrialization

of production, mechanization and automation of production processes, modernization and technical re-equipment of production, the development of knowledge-intensive technologies, the growth of labor productivity, which determine the level and efficiency of livestock production.

Exploring the terminological contradictions with regard to innovative activities in the agrarian sector and taking into account the specifics of the latter, as the transition to an innovative development model is associated with problems, urgent solution which will help to bring the country's economy out of a deep crisis, will provide entry into the world community, give a well-known definition of the term "innovations" in the agrarian sector. So, Kot O. considers agronomy as "... systematic introduction into the agrarian sphere of the results of scientific research work, which lead to positive qualitative and quantitative changes in the characterization of interactions between the biosphere and technosphere, as well as improve the environment" [6]. Kulayets M. and Babiyenko M. define the essence of agronomy as "... the final result of the introduction of innovation in the field of agriculture (a variety of plants, animal breeds, plant protection products or animals, cultivation technologies, etc.), which led to the economic, social, environmental and other types of effects » [7].

Their thoughts are echoed by the views of Kropivko M., who believes that agronomy is "... the final result of the introduction of new or improved products (services), technology, technology, variety, breed, organization of production, management system for the purpose of obtaining different types of products, effect and providing advanced reproduction process" [8].

According to Shubravska O., "agronomy innovation is an innovation that affects directly (or indirectly, within the technological chain) processes involving the person, the machine (equipment, instrument, etc.) and the environmental component (animal, plant, etc.), the existence of which in the natural environment (without human involvement) is impossible or possible with the loss of basic functional characteristics" [9].

Kipioro M. defines agronomy "as a result of labor, obtained through the application of new scientific knowledge that transforms the process of functioning and development of the industrial-economic system of agroindustrial complex in the direction of increasing its efficiency, stability and systemic quality of relations" [10]. Summarizing the above points, we propose the definition of agronomy itself, which should be understood as the final result of the introduction of innovations in the field of agriculture or structural transformations in the agrarian sector, relating to technology, technology, production organization, ecology, and the social sphere of the village, which led to obtaining economic, social, environmental and other types of effect and the purpose of which is to obtain various types of effects on the basis of satisfying certain social needs and ensuring food security of the country.

Conclusion. In the conditions of Ukraine's orientation in the world economy, the need to re-equip the industry, increase production volumes and the level of competitiveness of agricultural products, one of the promising directions of development of agricultural enterprises in Ukraine is the use of innovative approaches to economic activity. The development of the agrarian sphere should be ensured through the innovation and investment strengthening of the material and technical base of the agrarian sector, the introduction of environmentally safe, resource-saving and energy-saving technologies. That is why the strategic priorities in the development of innovation processes in the agrarian sector of the Ukrainian economy should include:

- technological re-equipment of agrarian enterprises and formation of organizational and economic mechanism for the functioning of the agrarian sector of the economy on an innovative basis;
- energy and resource-saving technologies of production, storage and processing of products;
- reproduction of soil fertility, prevention of all types of degradation, development of adaptive technologies for agro-ecosystems and agro-landscapes;
- development and processing of organic farming technologies;
- creation of a modern system of informational and infrastructural provision of innovation activity;
- development of state innovation policy and strategy at the national and regional levels and strengthening the role of state and regional institutions in activating innovation activities;
- improvement of the personnel training system in the field of innovative activity, which provides an increase in the innovative activity of organizations and the commercialization of research results.

REFERENCES

1. Заїка, С.О. Теоретичні аспекти управління інвестиційно-інноваційною діяльністю аграрних підприємств / С.О. Заїка // Науковий вісник Міжнародного гуманітарного університету. Серія «Економіка і менеджмент». –2015. – Вип. 11. – С. 101–106.
2. Заїка, С.О. Фактори формування інноваційного потенціалу підприємств / С.О. Заїка // Вісник Одеського

Economics

- національного університету. Серія: Економіка. – 2015. – Т. 20. – Вип. 6. – С. 94–97.
3. Інноваційні трансформації аграрного сектору економіки : моногр. / О.В. Шубравська [та ін.]. – Київ : ННЦ ІАЕ, 2012. – 496 с.
 4. Шумпетер Й. Теория экономического развития / Й. Шумпетер. – М. : Прогресс, 1982. – 455 с.
 5. Заїка С.О. Конкурентоспроможність та передумови інноваційного розвитку сільськогосподарських товаровиробників / С.О. Заїка // Економічний і соціальний розвиток України в XXI столітті: національна ідентичність та тенденції глобалізації : збірник тез доповідей Шостої Міжнародної науково-практичної конференції молодих вчених. – Тернопіль, 2009. – Ч. 1. – С. 203–205.
 6. Кот, О.В. Теоретичні аспекти інноваційного розвитку аграрного сектору економіки та його організаційно-економічне забезпечення / О.В. Кот // Проблеми в аграрних формуваннях та його наслідки // Проблеми інвестиційно-інноваційного розвитку. – 2011. - № 1. – С. 57–63.
 7. Кулаєць М.М. Інноваційна діяльність в агропромисловому виробництві України / М.М. Кулаєць, М.Ф. Бабієнко // Економіка АПК. – 2010. – № 6. – С. 113–119.
 8. Кропивко, М.Ф. Організаційні форми впровадження інновацій в агропромислове виробництво з використанням потенціалу аграрної науки / М.Ф. Кропивко, Т.С. Орлова // Економіка АПК. – 2007. – № 7. – С. 11–18.
 9. Шубравська, О.В. Розвиток сільського господарства України в умовах дії інноваційних чинників / О.В. Шубравська, К.О. Прокопенко // Економіка та прогнозування. – 2013. – № 2. – С. 118–129.
 10. Кіпіоро, І.М. Проблеми та перспективи інноваційної діяльності сільськогосподарських підприємств / І.М. Кіпіоро // Вісник Чернівецького торговельно-економічного інституту. Економічні науки. – 2014. – Вип. 1. – С. 120–126.