Modern development of agricultural industry is impossible without the use of innovations and technological solutions, the comprehensive implementation of which helps to save resources, reduce the cost of agri-food products, and increase the volumes and efficiency of agricultural production, which affects investment.

Key words: innovation-technological processes, tillage technologies, No-till, Strip-till, yield monitoring, agosphere.

Modern development of any enterprise, industry, country is impossible without the introduction and use of innovations and technical and technological solutions, as the level of activation of the latter determines the overall level of competitiveness in both domestic and foreign markets. After all, the comprehensive implementation of innovations helps increase productivity, save various resources,
reduce costs and reduce the cost of agri-food products, increase volumes and the efficiency of agricultural production, which affects investment.

Currently, the main challenge of global innovation and technological processes is the development of agriculture, which is aimed at the dynamism of agricultural production through the use of advanced technologies. Therefore, these processes may be accompanied by the emergence of various risks, for example: negative impact on the health of the population both through consumer products and in areas where products are grown; neglect of natural resources, especially soils and groundwater due to the intensification of agricultural and agri-food activities and uncontrolled use of insufficiently tested innovative technologies in the production process. This, in turn, will affect the economic stability of the state, the level of income of enterprises, reducing public demand for products due to the inclusion in its cost of additional costs and so on. Therefore, it is important to develop implementation standards and an effective mechanism for the use of innovative technologies in order to obtain economic and social effects.

The search for such innovative solutions that would increase the efficiency of the agricultural sector in conditions of limited and impoverished natural resources becomes extremely important. Today, the constant introduction of the latest developments is the key to sustainable development of agriculture.

In the agricultural sector of our economy, the development of innovation is declining due to the crisis caused by hostilities, shrinking markets, imperfect legislation, insufficient government incentives for innovation, limited internal and external sources of funding for innovation and the impossibility of their rapid mobilization, low level of investment attractiveness, and the lack of innovation and modern technologies for the production and cultivation of agricultural products.

It is necessary to identify and disclose the main advantages of using innovative modern technologies and the possibility of their adaptation, to determine their impact on improving the overall level of agricultural production of the country. This problem is insufficiently covered in terms of analysis of the development of the innovative component of the agricultural sector and requires detailed research.

The main challenge of the world's innovation and technological processes is the development of agriculture, aimed at increasing the volume of agricultural production through the use of technologies whose safety has not yet been determined. The current state of the agricultural sector is due to the global impact of technological modernization, which is not always appropriate and does not meet the real needs and capabilities of agricultural producers.

The agricultural economy of Ukraine, despite the instability of innovation activity, tries to integrate advanced scientific and technical developments and adapt them to its own production. Evidence of this is the latest technologies in crop production, animal husbandry and energy-saving farming systems.

Given the large territory of the agrosphere and the need for operational information on the state of agricultural resources, rational use of natural resources, yield forecasting, crises, widespread introduction of modern land use systems and information agrotechnology, the implementation of space industry becomes the most appropriate condition for agricultural production.

The attempt to rationalize the process of agriculture led to the use of space information technologies, in particular, the system "Rapid Eye", CORINE Land Cover (Coordination of Information on the Environment), Global Positioning System (GPS). They are used to monitor yields and calculate the amount of resources, including fertilizers or herbicides, needed for a specific situation. This allows to reduce production costs through more efficient use of material and technical resources, as well as reduce the level of negative impact on the environment.

Despite all the positive aspects of the introduction of advanced technologies by domestic producers of plant agricultural products, there are several fundamental obstacles to the formation of high-tech science-intensive crop production. These are, in particular, problems of normative-legal, institutional, economic, logistical, social-psychological nature, which hinder the innovative development of the industry and create potential threats to technological security.
There are new resource-saving tillage technologies such as No-till and Strip-till. No-till is a method of tillage that does not offer mechanical solutions to remove seals at a depth of 30-35 cm, whilst Strip-till (strip tillage) is a system of agriculture that provides minimal tillage.

In order to overcome the crisis of innovation and technological activity of the agricultural sector, it is necessary to do a range of following actions:

– to create an institutional and legal framework for the introduction of alternative methods of agriculture;
– to strengthen state support for basic scientific and technical research;
– to promote the development of agricultural science and intellectual potential of the agro-industrial complex;
– to improve the level of training and qualification of agricultural workers;
– to stimulate the state financial support of the agricultural enterprises engaged in innovative activity;
– to encourage investment in measures for the introduction of scientific and technical achievements in the production and implementation of appropriate programs of innovation in agriculture;
– to develop and implement effective mechanisms to stimulate innovation in the agricultural sector;
– to form an organizational and economic mechanism of technological security of the agricultural sector, etc.

Therefore, to ensure the stable development of agriculture, strengthening the economic and technological security of the industry, it is necessary to introduce the latest advanced technologies. The use of innovations and technical and technological developments in the agricultural sector will increase the effectiveness of its activities. Due to intensive technologies of domestic agricultural production it is possible to increase the production of gross output, improve its quality, reduce resource costs, which, in turn, will increase the efficiency and profitability of agricultural production.

LIST OF REFERENCES