Fedorak V.I., PhD, Associate Professor, Head of the Management and Tourism DepartmentThe Institute for Natural Resources Management KROK» University, Kolomyia, Ukraine

THE INNOVATIVE AND INVESTMENT DEVELOPMENT AS THE BASIS FOR THE AGRICULTURAL PRODUCTION

<u>Stating the problem.</u> The innovative development and technical support of agricultural production has become very important in the current period of market relations in agriculture. Traditional technologies and equipment that were used in the previous period are outdated and need to be renovated. Thus the necessity to transfer the agricultural production to the innovative and investment development model has aroused alongside with the modernization of agriculture.

<u>Analysis of recent researches and publications.</u> The innovation and investment issues to ensure upgrading of agriculture have been studied by Y.K. Bilousko, S.A. Volodin, V.V. Ivanyshyn, V.I. Kravchuk, P.M.Muzyka, V.P. Petrov, G.M. Pidlisetskyy, O.H. Shpykulyak, O. Shubravska and other researchers [1-5; 7-10]. The innovation processes have been studied by the Russian scientists V.D. Goncharov, S. Kotev among others [6].

The necessity to liven the innovation activities is caused by the requirement to save all kinds of resources, the introduction of alternative energy sources and complying with the norms of the balanced environmental management in the agricultural production. Under such conditions when the investment resources are limited, it is necessary to identify the priority actions for enhancing innovation in the agricultural sector.

<u>The reason of writing</u>. The main purpose of this study is to examine the condition of innovation and investment in agricultural production and to establish the mechanisms which attract the investment into the sector resources and identifying the key measures for innovation enhancing.

<u>The main body of the study</u>. The main strategic objective of the state policy in the field of agricultural economics is to develop competitive agricultural production, which is able to ensure food security, the depth of processing of raw materials and increasing exports of certain agricultural products. The fundamental basis for improving the efficiency of agricultural production is a public research support, the introduction of resource-saving and environment-friendly "green" technology innovation. Technical and technological innovation should cover all aspects of agriculture – agriculture, agro refining and agricultural machinery. An important task in this structural chain is given to the agricultural production [1, p.3-9; 2, p.132].

Studying and generalization of domestic and foreign experience in the field of innovative development of agricultural production makes it possible to build a strategy for the innovative activity. One of the forms of the innovative activity is the innovative business, which is a new form of integration of science and production. Innovative entrepreneurship is taking its first steps in agriculture [3, p.26-30].

To enhance this activity requires the joint efforts of entrepreneurs, public authorities and research institutions that have common motivational factors. Depending on the level of the market relations development the forms and methods of motivational factors are being changed. Thus, at present the innovative business is still developing. It should unite the entrepreneurs and the researchers with a mutual goal – the creation of an innovative product. The innovative activities include scientific, managerial, manufacturing, technological, marketing and other factors that are functionally interrelated and create innovative product. But the implementation of the innovative solutions is constrained because of the following reasons:

Firstly, a psychology of innovative entrepreneurship as a prerequisite for business has not been formed yet. The majority of the farmers hope to generate income using traditional agricultural technologies. But such an approach is not able to support the production of competitive products. The innovative method should become the basis of the enterprise workers ideology in the sector and public administration at different levels.

Secondly, the innovative entrepreneurship is characterized by the uncertainty of future results and significant risks that negatively affect the investment resources.

Thirdly, there is no legal regulation of business innovation and technology transfer, which covers the entire life cycle starting from determining the direction of scientific and technological development to final implementation of technology to end users, including steps to promote the product innovation market, finding counterparties, adapting the technology to the needs of practical application, the market demands and commercialization.

Fourthly, the lack of systematic state policy as of supporting the innovative entrepreneurship and commitment of entrepreneurs to the implementation of the innovative solutions, because in economic terms the most significant things that keep being are the indicators of profitability and innovation. In foreign countries, the level of innovation is taken into account at all stages of the company development and is

crucial for further growth. Thus each company builds up its strategy with regard to the researches and forecasts.

Fifthly, the lack of coordination and poor cooperation of the research institutions (universities, industry and research institutes NAASU al.) with business organizations on scientific and technological progress, new agricultural technologies (organic farming, precision seeding, etc.), the world trends in agricultural machinery, new organizational forms of agencies and management of the agricultural production and other areas of innovation promotion.

Sixthly, the information on innovation in all the structural elements of the innovation process is still insufficient. Providing advisory services to businesses, government, public institutions on economic, financial, scientific and technical policy and strategy is also low.

Since the innovative entrepreneurship development is only in the process of settling in Ukraine, it is necessary to bring the scientific potential to the needs of the market economy, to ensure the commercialization of products, to create a competitive environment and to accelerate the application of the scientific research results. For the first time in Ukraine the Institute of Economics and Forecasting of NAS jointly with the State Statistics Service of Ukraine conducted a survey of 58 farms from 2009-2011 to study the state of the innovation activities. The companies were selected on the bases of the official information from the agricultural area of 10 hectares to 57 hectares with a sufficient level of profitability. According to the survey the general patterns of the agricultural innovative activities were determined. Namely: the level of the innovative activity in crop production constitutes 57%, livestock – 30%, mainly the adoption of the foreign developments, the prevalence of own sources of investment, the innovation multidirectionality by type (Resource Innovations – 88 % Technology – 77%, the training of the personnel), the innovation application in the environmental protection – above 50 %. In the crop plants such innovative technologies are mainly applied as Noo-till, Mini-till, organic and precision farming, GPS-monitoring, precise seeding, drip irrigation, chisel tillage, spraying plants Fenn method [4, p.77-81].

In considering the innovation and investment development one cannot approach the innovation commercializing in simplified way. You can't simplify the approaches to integrating HP research and the development activity to the needs of the agricultural manufactures. The tasks, the phases and stages of the research do not confer to the same needs of production (do not coincide with the motives and worldview). The attempts to reform the science on the market principles somewhat violated the tenets of the scientific and technological activities. Therefore, the concept of integration of industrial science aims to create an efficient high-tech agricultural sector capable of ensuring the functioning and development of the competitive agro-industrial complex (AIC) [5, p.3-22; 6, 7, 8].

The innovative activities of the enterprises depend on the perception aggregate factors of innovation that is how it possesses the innovative potential and how its production system is ready to implement innovation. The ability to introduce innovations in agricultural enterprises is determined by external factors (competition, demand-supply, scientific and technical ties, etc.) and internal (innovative activity, motivation, management system and decision-making, etc.).

Given that the world population is growing at a faster rate (1.4% per year) than food production (0,9% per year) it is necessary to predict the production of all kinds of agricultural products. Thus the trends of the permanent increase in agricultural production will be kept in perspective using the innovative technologies. They will be developed on the bases of monitoring the demand for agricultural products. The demand for agricultural raw materials and food products is growing in the domestic market and the world. The scientists predict this tendency will continue in the world for the next 50 years [6, p.118-124; 9].

To ensure the sustainable development of the agricultural production it is necessary to improve the system of land tenure and create conditions for the innovation at all stages of agricultural production. Such a development is possible through the introduction of the advanced forms and methods of engineering software. Thus, the modern system of engineering and technical support should be seen as a part of innovation [10, 11p.118 -129].

The most sustainable development of agriculture, competitiveness in the domestic and global markets can be achieved through innovative technologies and solutions, including:

- The introduction of scientific achievements, technical and technological re-equipment of the agrarian production in transition to the saving technologies;

- Acceleration of technology transfer plant varieties, agro organic precision farming systems, vehicles, alternative energy;

- Provision of food in accordance with supply and increase production of environmentally friendly products obtained by means of the innovative technologies;

- Optimization of the volume of exports and imports of agricultural products with emphasis on the exports with sufficient depth of sound processing and imports;

- Improving employee motivation techniques for the development, implementation and production of the innovative products;

 Improving the mechanisms of scientific production (cluster) groups with the innovative technologies and the investment software innovation, uniting the efforts of the research, business and industrial structures for the innovative products; - The formation of the investment resources to support and encourage the development of the innovative agro-food complex with the appropriate institutional structures and skilled workers. One must create the system of mechanisms that will promote innovative development with minimal impact of institutional factors;

- Consideration of the innovative and investment activities in close relationships. The availability of the investment resources creates the objective conditions for the generation and innovation in the basic means of production, agricultural technology, management sector and human assets;

- The increase of the efficiency use of land, labor, material and financial resources through the creation of joint ventures with foreign capital and integrated community producers in scientific production and commercial structures;

- Improving the quality of training of land management specialists, agricultural production , engineering, logistics, innovation and business, which is a prerequisite;

- Technical re-equipment of the sector, especially agricultural machinery, which should comply with the agro-technical requirements, the needs and the latest developments in science and technology.

So in the context of globalization and the integration of Ukraine into space is a necessary condition to ensure the competitiveness of domestic agricultural products in domestic and international markets.

<u>Conclusions and further research.</u> Given the above, one can claim that due to the lack of the state support of the innovation of agricultural enterprises and the lack of favorable credit and financial system, own funds, depreciation and proceeds from the sale of obsolete equipment remain the main sources of investment. With limited investment resources it is necessary to integrate all the participants of the market innovative ideas, developments, products and services (scientists, inventors, economists, managers, farmers) in one organizational-economic mechanism with the appropriate legal framework to be set up in the near future.

The most important elements of influence on the effectiveness of innovation and investment in the agricultural production are: the study of the optimal size of land use that affect the efficient loading technique, the use of evidence-based crop rotations and crop area size, appropriate engineering system of agricultural work.

So, to solve the problems of innovative development of agricultural production one must create the system of information and consultation services for familiarization with the modern scientific development of competitive products and services, and create the psychological conditions of perception by means of agroformating the scientific achievements.

References

1. Demianenko, M.J. and Ivanyna, F.V. (2009), State support as a factor of competitive agricultural production, Economy APC, Kyiv, Ukraine, no. 9, pp. 3-9.

2. Bilousko, Y.K. and Tovstopyat, V.L. (2011) Trends and prospects of technical and technological reequipment of agriculture, Ahroinkom, Kyiv, Ukraine, no.7-9, 132 p.

3. Laiko, P.A., Kulaiets, M.M., Babiienko, M.F., etc. (2009), Innovation processes in the agricultural sector, Economy APC, Kyiv, Ukraine, no. 9, pp. 26 -30.

4. Shubravska, O. and Prokopenko, K.O. (2013), The development of agricultural of innovation activity in Ukraine, Economy APC, Kyiv, Ukraine, no.4, pp. 77-81.

5. Prysiazhniuk, M.V., Petrychenko, V.F. and Volodin, S.A. (2013), Conceptual foundations of innovation and investment of the National Academy of Agrarian Sciences of Ukraine, Economy APC, Kyiv, Ukraine, no. 4, pp. 3-22.

6. Shpak, A.P. (2013), The strategy of perspective development of agroindustrial production in Belarus, Economy APC, Kyiv, Ukraine, no. 1, pp. 118-124.

7. Goncharov, V.D., Koteev, C.B. and Ramazani, N.G. (2012), The development of innovative processes in the agro-industrial complex of Russian, monograph, 196 p.

8. Muzyka, P.M. (2005), Innovative entrepreneurship in the agricultural production of Ukraine, monograph, 306 p.

9. Rossokha, V. and Husak, O.M. (2011), Formation of innovative investment policies in the agricultural sector of the economy, monograph, NNTS "IAE", Kyiv, Ukraine, 240 p.

10. Shpykuliak, O.H., Bilozor, L.M. and Udovychenko, S.M. (2010), "The Innovative activity as a process of the creation of innovations" In: Sabluk, P.T., Shpykuliak, O.H., Kurylo, L.I. etc. Innovation in agriculture: institutional aspect, monograph, NNTS "IAE", Kyiv, Ukraine, 706 p.

11. Shubravska, O. and Prokopenko, K. (2011), The development of agriculture in Ukraine in terms of innovative factors, Economics and Forecasting, Kyiv, Ukraine, no. 2, pp. 118-129.

Fedorak V.I. INNOVATIVE INVESTMENT DEVELOPMENT AS THE BASIS FOR AGRICULTURAL PRODUCTION

Purpose. The purpose of this study is to develop mechanisms to attract investment resources and identify measures enhance innovation in the field of agriculture.

Methodology of research. Theoretical and methodological basis of the study is a systematic approach and the dialectical method of knowledge innovation processes in the field of agriculture, involving

investment of resources to upgrade logistics.

The subject of research is the innovation processes associated with organizational and economic, technical and technological changes taking place in the field of agriculture, including system support.

We used methods of analysis and synthesis of innovative processes in domestic and foreign agricultural production, statistical, accounting-structural, regulatory, and economic balance and mathematical study of technical support and basic directions of development of agricultural production in modern terms by introducing energy saving technologies agriculture.

Findings.

1. The state of innovation in agricultural production in 2009-2013 has been analyzed. It has been found that innovative entrepreneurship in Ukraine is only at its infancy.

2. It has been defined the general pattern of innovation activity in the plant - 57% with prevailing implementation of international developments for their own sources of investment.

3. The need mandatory consideration of research and forecasts in the formation of development strategy of enterprise has been confirmed.

Originality. Conceptual framework and guidelines of improving their software investment have been developed. These guidelines directed to the further development of theoretical and practical foundations of management of innovation and investment processes in the field of agricultural production.

Practical value. The main provisions of research can be applied in practical activity of agricultural enterprises. These guidelines and conceptual implementation can provide innovative solutions to update the material and technical base and optimize investment resources of agricultural enterprises.

Keywords. Innovation and investment development, modernization of agrarian production, technical updates, innovative activity, agrarian production.