**ECONOMIC GROWTH OF HORTICULTURE IN THE CONTEXT OF INNOVATION DEVELOPMENT**

**Urgency of the research.** Ukraine has favorable natural and economic conditions for the development of horticulture, while the application of innovative technologies is indispensable condition for the successful development of the industry.

**Target setting.** In order to improve the efficiency of the horticulture industry, a complex of organizational and economic measures should be implemented, among which an important role belongs to innovations.

**Actual scientific researches and issues analysis.** In view of the current changes in the development of gardening and the importance of products for food security, the study of issues related to the innovative impact on the functioning of the industry and its growth in the concept of innovative development of the agrarian sector of Ukraine need to be studied.


**The research objective: to substantiate the theoretical positions and practical recommendations concerning the economic growth of Ukrainian horticulture in the context of innovation development.**

**The statement of basic materials.** It has been established that the economic growth in the field of horticulture on an innovative basis is due to quantitative and qualitative changes in the direction of increasing production volumes and is the result of the organizational and economic factors contributing to the formation of innovative potential and the implementation of scientific and technological progress, as a result of the implementation of innovation changes in industry.

**Conclusions.** The economic growth of horticulture in the context of innovation development involves the implementation of a system of measures of organizational and economic nature that are implemented to improve the efficiency of the industry and aimed at accelerating scientific and technological development through the implementation, use and scientific developments in the production of fruit-berry products and planting, promoting it to the market, implementation and material and technical support of the extended cycle of progressive reproduction.

**Keywords:** economic growth; agricultural sector; horticulture; innovation development.

**DOI:** 10.25140/2410-9576-2018-2-1(13)-8-15

**Urgency of the research.** Ukraine has significant advantages over European countries for the natural and economic potential for gardening development. At the same time, the application of inno-
The economic growth in the field of horticulture on an innovative basis is considered by us as quantitative and qualitative changes in the direction of increasing the volume of production of fruit and berry products, as a result of the combination of organizational and economic factors that contribute to the formation of innovative potential and the implementation of scientific and technological progress, in the consequence of the implementation of innovative processes in the industry.

As P. T. Sablyuk notes: "The agrarian sector of Ukraine's economy is on the verge of a new historic round of agrarian reforms aimed at solving important issues, pervading problems, adopting new economic realities, and successfully positioning the agrarian sector in modern conditions. The new leadership of Ukraine is tasked with making deep reforms so that the country is included in the list of the most developed European countries [3, p. 16].

The modern concept of the development of the domestic agro-industrial complex (APC) requires significant adjustments regarding the effectiveness of the use of natural resource potential; identification of growth reserves and the creation of commodity stocks; directions of providing personnel, material and technical resources; ecological equilibrium of the environment, etc. [4, p. 126].

The development of the agrarian sector of the economy can happen in two variants [5].

The first variant is characterized by insufficient financing of the development of the agrarian sector, the declaration of social, economic and environmental measures, in the absence of real mechanisms for their implementation. If such an option is implemented, the main problems of the development of
agricultural production, in particular its integration into the world economic space, the formation of an efficient, socially oriented agricultural sector of the state economy, and the destructive processes of social infrastructure in rural areas will not be solved.

The second variant consists of identifying, developing and implementing directions for the development of the agrarian sector of the economy on the basis of optimizing its production and social infrastructure, increasing the competitiveness of agricultural production, increasing its volumes, improving the quality and safety of agricultural products, protecting the environment and reproduction of natural resources, increasing employment rates rural population, creation of new jobs.

The second option, which will enable the agrarian sector of the economy to meet the needs of the domestic market and to secure the leading positions in the world through the stable export of agricultural products and products of its deep processing, is optimal.

Therefore, the main tasks for the implementation of sectoral innovation policy are:

1. Creation of an innovative structure in the system of the national economic complex;
2. Provision of innovation activity by the improved legal base;
3. Improvement of the system of product certification and standardization;
4. Increase of volumes of production, as well as sales of products and increase their efficiency on the basis of rational use of existing potential through the development of new markets;
5. Improvement of the quality of domestic products and their environmental safety;
6. Ensuring favorable conditions for the organization and development of the forecasted market, filling its infrastructure with commodity and financial flows, as well as creating the necessary conditions for transparent competition;
7. Creation of a favorable climate for the activity of foreign and domestic investors, including the way by expanding the use of various forms of lending and leasing for producers;
8. Application of an innovative model of development of the national economic complex by modernizing the material and technical base and using modern production technologies;
9. Development of a system of stimulating factors for the development of innovative processes at different levels.

A number of specific features are typical for gardening, those that have a direct or indirect effect on the innovation process in the industry. The most important of these, in our opinion, are the following:

1. Horticulture branches has a prominent socioeconomic value, since the food and medicinal values of fruits and berry are exceptional and irreplaceable.
2. Gardening is an industry that requires significant investments in the creation of perennial plantations and the formation of productive infrastructure, therefore, the issue of attracting investment in the industry is one of the most acute, since the creation and efficient use of the garden requires not only significant material and technical costs, but also large specific labor costs. In addition, it is necessary to always take into account and a factor such as the nature of the plantation plant designation, we mean a long-term gap between the period of investing and obtaining an economic effect.
3. Compared to other basic means of agricultural producers, fruit and berry plantations are created directly at the enterprises. Thus, the enterprise gets the opportunity to create perennial plantings in the most complete way taking into account the features of a particular natural and economic environment.
4. According to the biological requirements of the environment, the time of market entry and the consumer value of products, fruit and berry crops, as well as their varieties have significant differences.
5. When substantiating and adhering to gardening turnover it is necessary to take into account that fruit and berry plantations differ considerably in the length of periods of creation, as well as in the period of their productive use.
6. Territorial attachment to the land is a special feature of fruit and berry plantations, because essentially the only main way of production - plantations and land, created for many years. Such a noticeable feature must always be taken into account not only in the valuation of these means of production, but also in the formation of lease relations.

Shestopal O. M. noted that due to the large differences between fruit and berry crops in the duration of the cycle of plantings their reproductive breed structure significantly differs from the breed structure of both fertile and young fertile and orchard gardens. Therefore, the existing recommendations on...
the rock formations of gardens can not be mechanically transferred to their reproductive breed structure, as this will increase the proportion of plantations with longer cycles [6].

Using a number of technological techniques one can extend the period of maximum productivity of plantings. Thus, in the process of using fruit and berry plantations, they can improve their productive qualities, unlike other basic ways of production. To do this, first of all, it is necessary to determine the optimal terms of productive use of plantations, which precede the deterioration of product quality, increase its cost and labor intensity, reduce yields, taking into account the specific conditions of production, depending on the varietal composition and type of plantings.

Constant monitoring of the latest achievements of science and best practices of economically developed countries for the development of agricultural production sectors, implementation of innovative processes on the basis of a set of organizational and economic and technical and technological measures, introduction of scientific and technical developments aimed at applications in the spheres of production, processing, storage, sale and the transportation of fruit and berry products aims not only raising the quantitative and qualitative characteristics of the functioning of the gal but also promote its high adaptability to a competitive market environment and effective development in today's market conditions. Thus, there are opportunities for the formation of various types of large-scale enterprises in the field of gardening, based on private property, aimed at deepening the specialization of production, developing effective forms of agro-industrial integration, production cooperation, the formation of a proper production and market infrastructure.

In our opinion, large specialized enterprises with 500-600 hectares of plantations will be promising, created mainly due to the attraction of significant investments and farms and private enterprises with the area of plantations of 15-20 hectares, which, for the purpose of efficient use of equipment, industrial facilities will be co-operated between by themselves.

Significantly, the innovation priorities of domestic gardening are conditioned by the necessity of forming significant export opportunities of the industry, increasing the share of fruits, berry and products of their processing in the general structure of consumption and designed to provide a scientifically sound rate of consumption by the population of gardening products.

Therefore, innovative gardening development is a system of measures of organizational and economic nature, carried out in order to increase the efficiency of the industry. Such activity is aimed at implementing innovative processes and accelerating scientific and technical development through the development, implementation and use of scientific developments in the production of fruit and berry products and seedlings, promoting it on the market, realization and material and technical support of the extended cycle of progressive reproduction.

Considering the separate elements of the system of formation of innovative potential in the field of gardening, it is first of all to distinguish the blocks of analysis: the existing strategy, the competitiveness of products in the market, the influence of factors of the external and internal environment, the system of resource support. As a result, it is necessary to implement the practice of managing a particular type of innovation, assessing its status and determining the direction of development. It allows to claim that the basis for the formation of innovation potential is a strategy, which is determined, first of all, by competitive positions in the market.

Increasing competition for sales markets determines simultaneous improvement of product quality and reduction of its cost. Neither the first nor the second one is possible without innovation.

As a defined factor of strategic development of horticulture and competitiveness in the domestic and foreign markets, the scientific and innovation support of the industry requires the following priority steps towards scientific activity:

- restoring the importance of breeding and introducing fruit and berry crops, as well as forming a bank of genetic resources;
- development of new and improved existing technologies for the production, storage and processing of fruits and berry;
- development and learning of technologies of production of healed planting material; development of standards for planting material, ready fruit and berry products, products of their processing;
ИНОВАЦІЇ

- the substantiation on the basis of large-scale marketing research of theoretical forecasts and comprehensive programs of gardening development in the state, designing and laying of perennial plantations;
- development of patent-licensing and inventive work;
- strengthening of the material and technical base and improvement of training for the given branch of economy on the basis of total supply of the needs of the state in the personnel with higher and secondary education in the field of fruit production.

The listed innovation priorities in practice are realized in modern industrial horticulture in the following directions:

1. The first place as before is given to traditional (intensive) fruit production, which is based on the voluminous use of man-made factors, which increase the productivity of fruit-bearing plantations. The basis of intensive gardening are types of plantations with a high density of plantations (2.5-5 thousand apple trees per 1 ha). Gardens are laid commercial varieties that require multiple use of plant protection products, increased doses of mineral fertilizers. Such a garden for the second year after planting gives 15 t / ha of fruit, and for the 3-4th year - 30-40 t / ha. Recently, intensive gardens with density of plantations up to 6-10 thousand trees per 1 hectare, which realize their potential for 8-10 years, have appeared. At the same time, the cost of gardening is increased by 1.5-2 times, but the payback period is substantially reduced and the profits are multiplied several times as apples of new kinds are sold more expensive. It should be noted that in developed countries new kinds appear every 3-5 years, more intensive kinds and clones with improved characteristics, which are in demand in the most mass market segments.

In the meantime, the average yield of fruit plantings in our country is extremely low. So the productivity of apple varieties is 10-15 t / ha, and in advanced farms (their share is only 1.5% of the total number of farms) - 25-35 t / ha, while in Europe, on average, they collect 60, in Israel - up to 75, and in China - almost 100 tons of apples per hectare [7].

2. Organic (biological) horticulture, which is based on the refusal of use in agricultural technologies of mineral fertilizers and pesticides of chemical origin, through the adequate use of agronomic techniques and biological methods (preparations), is becoming increasingly popular in the world. In the last two decades, the global organic farming market is one of the fastest growing segments of the food market. This tendency allows us to predict that the development and effective management of organic gardening in Ukraine could become one of the areas of ensuring sustainable development of the industry. In turn, this requires the implementation of a set of scientific, innovative, technological and organizational and economic measures.

3. In a modern science and practice, the efficiency of conducting the so-called highly adapted gardening (according to the international classification - integrated) is increasing, which involves more widespread use of intensification processes for the restoration of natural resources through the use of resource-intensive and environment-protecting technologies.

According to the data obtained as the result of the conducted researches, at highly adapted gardening system, the cost of mineral fertilizers may be reduced by 2-4 times, the expenses for the purchase of herbicides are completely excluded; material, labor and financial expenses in the process of planting and operation of plantations are significantly reduced (the number of planting material is reduced, there is no need for supports, irrigated, etc.). The length of productive use of a highly adapted garden for 5-8 years is greater than the traditional intensive. The yields of the gardens of both types are approximately the same and can reach 100 t / ha. Moreover, highly adapted gardens are characterized by stable yields at a rather high level in different, even unfavorable by the weather conditions years. This feature makes it possible to distinguish this type of garden from traditional plantings, providing in the long term a stable development of the industry.

4. Since the laying of intensive gardens can occur only with the use of quality planting material, a significant role in the intensification of gardening in the world is given to innovation in the field of seedlings. The work on creating a system of notification and transition to the production of healed (tested) planting material continues in Ukraine, which, as it is proved by world practice, is a priority trend in the
development of fruit production, which allows to increase the productivity of fruit and berry crops by 30-40% at the expense of reduction of losses from cancer, viral and other diseases.

Fruit-bearing plantations capable of producing large quantities of high-quality fruits and berry are a prerequisite for the effective development of the gardening industry and the entry to international markets, since large-scale consignments of the same type are likely to be formed, thus contributing to the competitiveness of domestic products. Implementation of reproductive processes on the basis of the application of innovative technologies is an indisputable condition for the successful development of horticulture in a globalized environment of functioning.

Growth in fruit and berry production can be achieved as a result of a separate action of extensive or intensive group of factors. The expansion of the area of fruit bearing plantations is considered to be one of the main extensive factors of increasing the gross collection of horticultural products. At the same time, in conditions of modern scientific and technological progress, in the gardening of reproduction of physical substance of fixed assets in perennial plantings is connected with the intensification of the factors of intensification of both investment processes and production, the concrete expression of which are new types of gardens and berry, advanced technologies, promising varieties and others.

The development of scientific and technological progress in the creation of more advanced means of production and technologies, the allocation of new varieties change the concepts that have traditionally developed, the rational territorial distribution of commodity production of certain types of gardening products. The question of the placement of gardening products can be solved only on the basis of the application of a complex of economic factors, including such as the need for fruits and berry, the trend of solvent demand for these products, the territorial division of labor, the availability of necessary material and labor resources.

The deepening of innovation and structural transformation poses the following tasks to the country's economy: the definition of the priorities of the development of the national economy taking into account available resources; ensuring the dynamics of economic growth; promotion of innovative development of industrial production and substantiation of the methodology of further development [8, p.16]. The realization of such tasks requires a scientific substantiation of the paradigm of development and identification of opportunities for the implementation of innovative changes, the development and implementation of a modern management system, which creates conditions for the transition of agricultural producers to the latest forms of economic management.

The intensive type of economic growth in agriculture in Ukraine, based on the tense use of the main factors of production, although not exhausted in its entirety, needs to be changed in view of the emergence of a new paradigm of economic management, which is based on the notion that the economic system includes not only interrelations between its subjects, but also between subjects and objects of nature, that is, it is transformed into ecological-economic system. The growth of such a system in a post-industrial society is provided on the basis of the use of scientific knowledge and information, which become the main factors of intensification [9].

The main direction of radical changes in the economic situation in the field of gardening is improving the use of available resources of farms and bioclimatic potential of regions through the introduction of intensive resource-saving technologies for growing fruit and berry crops, expanding the network of enterprises specialized in the production of fruits and berry, improving the placement of gardens, improving the structure of the rock and varietal composition of plantations, expansion of processing and storage of products in places of its cultivation, elaboration of measures for increase of perspective forms of management efficiency.

Creating an effective innovation system involves a common interest in the activities of the state and the non-state sector of the economy. In this case, the main catalyst for the development of a particular sector of the national economy is investment. With the availability of resources for successful implementation, industry-related innovation is linked.

Having insufficient investment resources, it is important to be able to make the right choice in favor of the project, the development of which funding will be the most rational, and the ability to cooperate and integrate financial and logistical efforts both horizontally and vertically for the sake of development, especially the industrial sphere of the economy and application a wide range of levers and methods of
managing innovation processes will only contribute to the effective management of innovative projects.

To improve the efficiency of investment processes in horticulture should, first of all, improve the accounting of costs, which form the book value of plantations, establishing for the units of farms the maximum amount of capital investments to create plantations. In addition, there was a need for accounting and analysis in horticultural farms as a whole, as well as for their structural subdivisions, the index of the introduction of perennial plantings in existing fixed assets.

In order to mobilize all available opportunities to ensure effective sectoral development, it is necessary to pay attention to improving methods and tools for activating investment processes, methodological, informational, normative and legal support directly to the organizational and economic mechanism of investment activity. The process of economic growth should be stimulated and secured through investing on the basis of a variety of sources of funding, among which state regulation should play a leading role.

The main components of state regulation and support for the revival and regulations of industrial gardening in Ukraine are: a) granting of loan credits for the creation of multi-year plantations and the formation of industrial and market infrastructure; b) a radical improvement of the mechanism for the formation of a depreciation fund in industrial gardening through annual depreciation deductions from the book value of multiplicity plantations. In order for the depreciation fund to be used directly for the reproduction of specific species of fruit and berry plantations, it must be formed for each fruit and native crop and planting types; c) in order to carefully determine the changes that occurred during the last years of the reforms in the industrial gardening of the country and the assessment of the modern quantitative and qualitative composition of the plantings, as well as the clarification of the number of subjects of industrial gardening, the need to examine and to index the book value of fruit and berry plantations through the system of the State Statistics Service of Ukraine to carry out simultaneous registration of all existing organizational structures, which are specialized in commodity production of fruits and berry simultaneously fixing their planting areas, as well as the state of production and market infrastructure, and foreseeing prospects for the development of the industry in a perspective; d) In order to protect domestic producers of garden products from expansion from other countries, it is extremely important to establish quotas for the importation of those types of garden products that can be successfully produced in Ukraine; e) it is expedient to establish certain volumes of state purchases of fruits and berry taking into account the needs of state organizations, in particular, schools, kindergartens, hospitals, armies, etc.; e) it is important to create advisory chapters with their functioning on a self-supporting basis [10, p. 122] for the purpose of the most active dissemination of information on novel science and technology achievements in the structure of scientific research institutions in the field of gardening. Thus, the solution of these tasks can not be achieved without the participation of state authorities.

The main organizational factors of scientific and technological progress in gardening include: deepening of specialization, rational placement and concentration of the industry, integration of production, industrial processing and storage of fruits and berry, progressive forms of organization of production and sales of products, organization and material stimulation of labor.

**Conclusions.** Innovative development of horticulture is a system of measures of organizational and economic nature, carried out in order to improve the efficiency of the industry. Such activity is aimed at implementing innovative processes and accelerating scientific and technical development through the development, implementation and use of scientific developments in the production of fruits and berry products and seedlings, promoting it on the market, realization and material and technical support of the extended cycle of progressive reproduction.

It is proved that the economic growth of the gardening industry at the present stage is a necessary component of the formation of economic, organizational, managerial and personnel components of the scientific and innovation potential of the agrarian sector of the economy. The economic growth in the field of gardening on an innovative basis is considered by us as quantitative and qualitative changes in the direction of increasing the volume of production of fruit and berry products, as a result of the combination of organizational and economic factors that contribute to the formation of innovative potential and the implementation of scientific and technological progress, in the consequence of the implementation of innovative processes in the industry.

**Melnyk V. I., Pohrishchuk G. B. Economic growth of horticulture in the context of innovation development**
In terms of modern globalization of the world economy, and the intensification of competition between producers of horticultural products, only a complex action of organizational and economic and technological factors will ensure a significant increase in the efficiency of gardening, so that domestic fruits and berries will be quite competitive on the world market. The main driving force behind innovation is the scientific and technological progress, which should be considered in the light of its economic, technological and environmental aspects.

References

Бібліографічний опис до цитувань: