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### **Modern innovative technologies in agricultural housing**

Innovation activity is an important part of accelerating the development of agriculture. It is in the agro-food sector, unlike other areas, that the development of innovations is appears slower, requiring special attention. Innovative processes in agriculture have certain features related to its specificity, namely: the presence of living organisms, seasonality and increased risks, etc.

The current state of the agrarian sector is conditioned by the global impact of technological modernization, which is not always appropriate and does not meet the real needs and capabilities of agricultural producers.

Agriculture of Ukraine, despite the instability of innovation activity, tries to integrate advanced scientific and technical developments and adapt them to their own production. The proof of this is the use of the latest technologies in agriculture, crop and livestock cultivation, which are used by the leading enterprises in Ukraine. The exploitation of the best practices of foreign organization and the innovative activities of domestic enterprises contribute to the country's agricultural development and the level of its competitiveness [1].

However, there is now a wide range of innovative solutions in each aspect of the agrarian sector, which enables them to be used in accordance with the conditions of the current development or the production stage. Evidence of this is the latest crop technology, livestock farming and energy-saving farming systems.

In plant cultivating, new technological solutions are associated with breeding, genetic engineering, organic farming, micro-irradiation, space information technology, nanotechnology.

The present stage development tendency of agriculture involves the creation of conditions for stable management of soil conditions, including hydrological, thermal, biological regimes. Innovations in cultivating soil to increase fertility and preservation of trace elements are quite active in domestic agriculture, but their influence does not

always have a positive effect. This is reflected in contamination of groundwater and the destruction of nutrient microorganisms, which ultimately affect plants, animals and humans. Therefore, progressive modern technologies of minimal tillage and precision agriculture such as "mini-till", "no-till" and "strip-till" have being used more and more widely [2].

Significant concern also poses the effectiveness of the scientific and technological progress in livestock production achievements mastering, since it remains one of the depressed branches of agriculture, which, though slowly, creates conditions for accelerating technological and innovative modernization. Progressive livestock technologies include the introduction of intensive feeding systems, biotechnologies, modern technical and technological support, breeding and breeding work, as well as energy and resource-saving technologies.

A rather important aspect is the introduction of resource-saving technologies in agriculture, which should be carried out in three main areas:

Improvement of organizational and economic mechanisms of management (establishing a rational demand of a village in energy resources, taking into account the attraction of local fuels and the introduction of energy saving technologies; planning and accounting of volumes and structure of energy consumption; ensuring unity of measurement, certification and standardization; ensuring effective tariff policy; increasing the incentives of agricultural producers to save energy, public education and advertising company, the use of penalties for inappropriate use of energy recourses);

optimization of technical and technological potential: (development of advanced electrotechnologies, development of progressive electric and thermal power equipment, implementation of decentralized energy supply systems, optimization of the structure of crop area of agricultural crops, rationalization of placement of crop rotation, improvement of the park structure of tractors and self-propelled machines, application of combined machines and aggregates, use waste animal and poultry farming for the production of heat and electricity; development and utilization of equipment and technologies for renewable energy and waste energy);

application of non-traditional and renewable energy resources: (use of solar energy, wind and water, use of biohumus and biogas,

utilization of heat of ventilation emissions of livestock and poultry farms and complexes, industrial wastewater, etc.).

Thus, in order to ensure stable agricultural development, strengthening of economic and technological security of the industry, the introduction of the latest advanced technologies is necessary. The use of innovations as well as technical and technological developments in the agrarian sector will make it possible to increase the effectiveness of its activities.

1. Агробізнес України – 2016. [Електронний ресурс] – Режим доступу: <http://agrex.gov.ua/wp-content/uploads/InfGgrafika-silskGgG-gGspGdarstva-Ukrayini-vid-BakerTilly-ta-Latifundist.pdf>.

2. Крачок Л. І. Новітні технології у сільському господарстві: проблеми і перспективи впровадження / Л. І. Крачок // Міжнародний науково-виробничий журнал Сталий розвиток економіки. – 2013. – № 3(20). – С. 224-231.