

## INNOVATIVE WAYS TO REDUCE CROP PRODUCTION COST

**Dyvnych O.D.**

Candidate of Economic Sciences, Associate Professor,  
Poltava State Agrarian Academy

**Demidenko L.M.**

Candidate of Economic Sciences, Associate Professor,  
Poltava State Agrarian Academy

Innovation activity is to implement the results of research work, to find reserves of cost savings, to increase the efficiency of the operational and economic activities of the enterprise as a whole. In agriculture, food, technology, technical, organizational, managerial, and marketing innovations are implemented. However, for a well-grounded implementation of a particular development, the agricultural enterprise must rely on the economic effect of the implementation of the measure and make the appropriate adaptation of the organizational and economic environment of the activity.

Cost is a complex economic category that integrates cost estimation of the cost of resources for production and sales. The article determines that a significant number of factors of a subjective and objective nature affect the cost price.

In the structure of material costs included in the cost of crop production in 2016, as compared to 2012, the share of mineral fertilizer, spare parts, repairs and construction materials for repairs, payment for services and works performed by outside organizations, and other material costs. At the same time, the share of expenses on fuel and lubricants decreased, which is caused by the use of energy and resource-saving technologies, as well as the use of advanced technology with the GPS navigation system.

The study of the average annual growth rates of material assets related to agricultural activity shows that the highest growth rates have plant protection products and

plant growth regulators – an average of 23% annually, as well as agricultural machinery, in particular tractors with a power output of more than 100 kW – 29.3 %, seeders – 32.1%, grain harvesters – 27.9% annually.

One of the innovative ways to increase fertilizer use efficiency is the use of liquid nitrogen fertilizers, in particular, anhydrous ammonia. Since anhydrous ammonia provides a more uniform application of nitrogen fertilizers, as well as makes available active substances for plants, the belt method helps to slow the growth and development of weeds, all these factors contribute to an increase in the yield of corn for grain at 6.7 c / ha or 9.1 %. By saving the cost of purchasing and fertilizing, the production cost of corn for grain will decrease by 15.4%, and will ensure an increase in the profitability of production by 30.5%.

Another innovative means of increasing the efficiency of plant production is the use of plant growth regulators. Plant growth regulators are natural phytohormones, their synthetic analogues or compositional preparations, which allow to purposefully regulate the most important processes of growth and development of a plant organism, to most effectively realize the potential possibilities of a variety. Growth of winter wheat yields due to the use of the growth regulator Biolan in the cultivation of winter wheat is 7.3 c / ha (14.9%), and the increase in profitability is 15.6%, which indicates a high level of efficiency of the use of these tools.