

PROSPECTS FOR INCREASING THE PRODUCTIVITY AND EFFICIENCY OF AGRICULTURAL PRODUCTION WITH THE USE OF AN INTELLIGENT INTEGRATED ENVIRONMENT

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Annotation. The production of agricultural products is currently closely connected with the use of digital technologies, elements of precision farming, automation and robotization of agriculture. To ensure an increase in the efficiency of agricultural production through the introduction of an intelligent environment, automation and robotization of agriculture with the integrated use of digital technologies, elements of precision farming and artificial intelligence, the authors have developed an intelligent integrated system (IIS) «Smart Field». It makes it possible to constantly monitor the condition of the soil and crops, predict, respond in a timely manner to threats (pests, diseases, weeds), preventing the manifestation of negative factors that affect the quantity and quality of products.

The presented concept of the intelligent integrated system (IIS) «Smart Field» in the production of corn grain, thanks to the flexibility of configuration and scaling, can also be used for the cultivation of any other agricultural crop. Such a system in the future will allow not only to «digitize» agro technical processes, but also to significantly increase the volume of production and quality of agricultural products while reducing costs.

Keywords: agricultural production, automation and robotization of agricultural production, precision agriculture, digitalization, artificial intelligence, intelligent environment, intelligent integrated system

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