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BUCKWHEAT PRODUCTIVITY IN ORGANIC AGRICULTURE IN THE CONDITIONS OF THE EXPERIMENTAL FIELDS OF BNAU

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Pollution of the natural environment is one of the acute problems both in the world and in Ukraine. Human economic activity is always associated with changes in natural processes and in most cases has a negative impact on the environment. In particular, agricultural activity and the use of intensive technologies for growing agricultural crops cause the depletion of ecosystems and the loss of biological diversity.

Irrational land use and agriculture without taking into account the need to restore the soil cover led to degradation and a decrease in soil fertility. About 90% of arable land in Ukraine is subject to varying degrees of degradation. Losses of the organic part amount to 0,6 – 1,0 t/ha every year, which led to a decrease in humus content. As a result, such approaches to conducting agricultural activities contributed to the development of irreversible processes that lead to an ecological crisis. The use of intensive technologies and the development of environmental threats prompt scientists and producers to develop alternative methods of farming that improve and restore the ecological component. One of the ways to solve environmental problems is the introduction of organic farming [1].

It should be noted that Ukraine ranks 11th among European countries and 20th in the world in terms of the total area of agricultural land that has acquired the status of "organic" as a result of the certification process. In the Eastern European region, in terms of certified organic arable land, Ukraine occupies one of the leading places.

About half of the agricultural lands of Ukraine, certified in accordance with the requirements of organic production, are used for the cultivation of the following crops: cereals (45,4%), oil crops more than 18% and another 5,3% legumes. It should be noted that vegetable crops occupy 1,6% (10th place) and fruits - 0.7%.[3], the direction of organic berry production in Ukraine began to develop quite rapidly, namely the cultivation of raspberries, blueberries, and blackberries.

Ukraine has been a powerful supplier of organic products in recent years. Consumer demand for organic products is mainly concentrated in economically developed countries, as such products are more expensive than conventional products, given the higher cost of their production and processing.

As a result of scientific research, it was noted [2, 3] that the introduction of organic production has a number of advantages compared to traditional production, in particular ecological, economic and social aspects. Economic causes increase in profit and increase in competitiveness. Environmental benefits contribute to the preservation of the environment. Social benefits are based on providing the market with quality and useful products that are safe.

At the same time, in the development of organic production in Ukraine, there are a number of restraining factors that inhibit the further development of this segment of the agricultural sector, in particular, imperfect scientific support for organic production. Therefore, the goal of our research was to improve the elements of buckwheat cultivation technology under organic farming.

The research was conducted in 2021–2022 at the experimental field of the Training Production Center of the Bila Tserkva National Agrarian University (BNAU).

In these studies, the following auxiliary products were studied on buckwheat culture: Control (without fertilizers); Humisol; Potassium humate + micro elements.

All types of microfertilizers are included in the List of pesticides and agrochemicals allowed for use in Ukraine, as well as in the List of inputs for use in organic production, taking into account the requirements of the standard of international accredited certification bodies for organic production and processing, which is equivalent to EU regulations No. 834/2007 and No. 889/2008.

Characterizing the yield of the crop for the application of the technology using the researched drugs, it should be noted that the yield ranged from 0,93 to 2,8 t/ha. The application of the technology with the use of auxiliary products in organic production shows an increase in the yield of buckwheat by 1,87 t/ha compared to the control plots. The maximum level of yield was obtained for the use of potassium humate with trace elements of 2,8 t/ha

References:

1. Malinka L.V. (2020) Stan ta vyrobnytstvo orhanichnoi produktsii v Ukraini. Vyroshchuvannia hrechky za zastosuvannia biopreparativ [Status and production of organic products in Ukraine. Buckwheat cultivation using biological preparations] Ahrobiolohiia [Agrobiology], №2. P. 90 - 97