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FORMATION OF ARUGULA PRODUCTION USING THE "LIVING FERTILIZER" BIO PREPARATION

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In the technology of growing different varieties of arugula, the background of nutrition plays an important role, since this culture is green and has the ability to accumulate a large amount of nitrates. Currently, in the domestic literature, the problem of technological methods of growing arugula is of a fragmentary nature. In Ukraine, the issue of root feeding of arugula is poorly studied, which determines the relevance of our research. The purpose of the work was to study the effect of the biological preparation "Live Fertilizer" on the growth, development and formation of the crop of arugula.

The precocious variety Victoria, recommended for growing in open and closed soil conditions, was chosen as the material for research. For pre-sowing treatment of seeds and root feeding of plants, biological preparation "Live Fertilizer" with microorganisms for balanced nutrition was used. According to the manufacturer's recommendations of BTU-CENTER LLC, a 7% solution was used for pre-sowing seed treatment, and a 0.35% solution was prepared for root feeding. The dimensions and area of the leaf surface were measured, and the yield per 1 m^2 was determined.

It was established that the use of a biological preparation for feeding arugula had no effect on shortening the interphase periods of plant development. However, in the control version without the application of fertilizers, real leaves of slightly smaller sizes were formed in the plants, which ultimately led to the formation of a smaller assimilation surface of the plants. Thus, the largest area of the photosynthetic surface of plants in the phase of technical ripeness (79.4 cm^2) was in the variant where pre-sowing treatment of seeds in a solution of biological preparation was carried out. In the version with control, without the use of the drug, the difference was 23.5%. In terms of above-ground mass, plants grown with the use of a biological preparation dominated. The lowest yield was obtained on the control variant -

1.33 kg/m^2. The maximum increase in production is 30.8%, recorded on the option with pre-sowing seed treatment and subsequent root feeding (1.74 kg/m^2).

Thus, the use of the biological preparation “Living Earth” for the cultivation of arugula did not affect the reduction of the interphase periods of plant development, but had a positive effect on the formation of their assimilation surface, which increased by 25.3%-32.3% compared to the control. The yield of arugula within the experimental variants was 25.6-30.8% higher than the control.

Keywords: seed arugula, biopreparation, feeding, harvest.