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EFFECT OF BIOSTIMULATOR ON THE VEGETATION PERIOD OF OILY SUNFLOWER

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Annotation. The article found that the application of the biostimulator VL-77 navigator "Dilbar" of oily sunflower creates a favorable environment for high yields (32.8 ts / ha) at a rate of 500 grams / ha.
Keywords. Oily sunflower, variety, seeds, options, drug, biostimulator, consumption rate, yield, basket, growing season, farm ripening, tray.

Introduction. Today, the demand for sunflower oil in the consumer market is growing. This oil, which is useful for humans and is very well digested, is used without stains. Oil production facilities are being modernized and modern lines are being installed to deodorize the extracted oil.

The degree to which the problem has been studied. Experiments by many scientists have shown that physiologically active substances of synthetic or natural origin have a major effect on plant metabolism, resulting in changes in the growth and development of the whole organ or some of its organs and increased resistance to stressors. Substances that regulate plant growth cannot replace mineral fertilizers, but replenish them in the plant nutrition system, increasing soil and fertilizer utilization rates. These drugs are mainly processed before sowing the seeds and sprayed when the sunflower forms 3–5 leaves. At the same time, the yield increases by 0.22-0.31 t / ha and the oil content by 0.3-0.5%.

Research conditions and methods. Field experiments were placed systematically, with 3 iterations, 6 variants. The area of the accounting field subdivision is 56 m2, of which the calculated area is 28 m2 and the number of plants is 20. Sunflower seeds are sown in the second decade of March. Nitrogen and phosphorus fertilizers were applied at 50 kg / ha by

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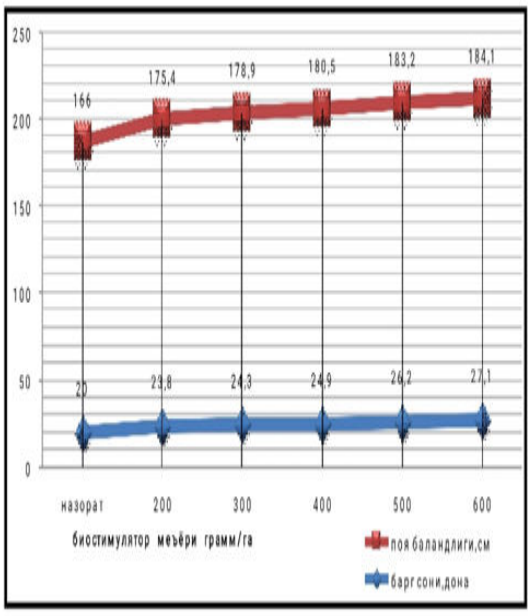
sowing. Nitrogen fertilizer at 75 kg / ha was applied when 5-6 leaves were formed on the plant and after the basket was formed. In the laboratory, the seeds were treated with a biostimulator, the seeds were sown for processing in the field, and the stems and leaves were treatedwhen the sunflower produced 2-4 leaves.

Research results. VL-77 biostimulator in the dosage of 200, 300, 400, 500, 600 mg with good results in the laboratory was selected for field use. In the variant with a high biostimulator dose of 600 mg / ha, the plant grows tall and thick, 18.1 cm higher than the control, 8.7 cm higher than the second variant, 5.2 cm higher than the third variant, 3.6 cm higher than the fourth variant, and the fifth. found to be 0.9 cm higher than the variant.

Sunfwer stem and leaf formation:

Diagram - 2



In sunflower, the large leaves are mainly located in the middle of the stem, they make up 80% of the assimilation surface of all plants and retain their activity for a long time even after flowering. The leaves, as well as the inflorescences, rotate in the direction of the sun from east to west during the day until flowering, or from north to west during the day if they are oriented in the morning. This increases photosynthesis productivity by 10%.

In the control variant, 20 leaves were formed on one plant, which differed from other variants in the experiment by the small number of leaves. At a dose of 200 g / ha, the biostimulator was 3.8 units compared to the variant used, 4.3 units compared to the variant applied to 300 g / ha, 4.9 units compared to the variant applied to 400 g / ha, 6.2 units compared to the variant applied to 500 grams / ha It was found to produce 7.1 fewer leaves than the 600 g / ha variant applied.

Hence, it was observed that the biostimulator had a positive effect on the growth of sunflowers, when applied in small amounts the plants were low and the number of leaves was low, on the contrary, when the amount was increased they were larger and heavier.

It was observed that the effect of the biostimulator on the productivity of one plant was high, and in the control variant it was found that the number of seeds in one basket was 1028.0 and their weight was 85.3 grams. In the

fifth variant, where the biostimulator was used, an increase in the number of seeds was observed and it was found that it was 276 more than the control and weighed 31.3 grams lighter. The increase in the amount of biostimulator led to an increase in the number and weight of seeds in the baskets, and in the third variant with a norm of 300 grams / ha 1325.0 seeds weighed 119.9 grams, in the fourth variant with a norm of 400 grams / ha 1340.0 seeds and a weight of 122.3 grams. In the fifth variant with a norm of 500 grams / ha, 1367.0 seeds with a weight of 125.8 grams, and in the sixth variant with a norm of 600 grams / ha, 1315.0 seeds with a weight of 118.5 grams were formed. Increasing the biostimulant rate to 600 g / ha did not result in an increase in the number of seeds in the basket.

Conclusion: It was found that high yields when applied to the sunflower biostimulator at a rate of 500 grams / ha, if the amount of biostimulator is increased, adversely affects the yield and leads to its reduction.

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