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INFLUENCE OF REGULATORS OF GROWTH ON SOME STRUCTURALLY FUNCTIONAL INDICATORS OF ACTIVITY OF THE PHOTOSYNTHETIC DEVICE OF PLANTS OF CORN IN THE CONDITIONS OF SALINIZATION

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Studied the effect of synthetic growth regulators – ivin, 6-BAP on the structural and functional parameters of photosynthetic apparatus of maize plants at early stages of ontogenesis in the conditions of salinization.

Set that salinity in the dynamics of the experience at 7–21 day plant decreases to a greater extent the content of chlorophyll *a*, than in chlorophyll *b* and increases the content of carotenoids in the 14–21 day plant, which is one of the protective-adaptive reactions in response to extreme impact. Exogenous growth regulators negate the negative effect of salinity and increase of chlorophyll in leaves of maize. Under the influence of the drug BAP this figure is closer to the control option. The contents of Chl *a* and Chl *b* under the effect of the medicine ivin, even exceed the control saline background.

The salinity indication regenerative activity of chloroplasts isolated from the leaves of 14-day maize plants is reduced in the mesophyll and in the lining. Under the action of the growth regulators ivin and 6-BAP in the salt background there is the increase of a 14-day and 21-day plants. In the process of experience in the mesophyll, and in the lining it increases to 1.2–1.3 times.

The difference in the content of Chl *a* and Chl *b* in the recovery and activity of chloroplasts in leaves of maize plants are closely associated to changes in net productivity of photosynthesis.

So, at influence to salt stress (100 mM NaCl) happen decrease productivity of photosynthesis in 14 and 21 - day plants. Exogenous growth stimulator ivin and 6-BAP on the salinity increased this figure. The effect of drug BAP on the salt background is less than the product ivina. Indicators of neat productivity of photosynthesis under the influence of the drug ivin made 114,1 % of 120.4 % compared to the control variant.

So, the drug ivin in biologically active concentrations (50 mg/l) against salinity (100 mm NaCl) had a more significant impact on the concentrations of Chl *a*, Chl *b* and carotenoids, restorative activity of chloroplasts and neat productivity of photosynthesis of corn in the background salinity, in comparison with a preparation of BAP, which confirms the more pronounced its protective effect.

Keywords: corn (*Zea mays* L.), ivin, 6-BAP, pigments, recovery activity of chlorolayers, net productivity of photosynthesis.

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