THE EFFECT OF BIOSTIMULANTS ON THE PROCESS OF PHOTOSYNTHESIS AT THE LETTUCE

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Abstract

This study followed the effect of two organic biostimulants on the photosynthesis process in two salad varieties grown in the greenhouse. At the same time, the aim was to establish the most effective way to apply biostimulants to increase production. Application of growth regulators was done every ten days by foliar spraying and root application. The first application being made at the appearance of the first leaves, and the last application was made ten days before harvest. The biostimulants used in this study were *Wuxal Ascofol* with a high content of algae extract and *Black Jack* based on humic acids. The photosynthesis process was evaluated by determining the total chlorophyll content and by evaluating the content of photosynthetic pigments in the leaves. The study showed that the applied organic treatments stimulated the photosynthesis process in both varieties of salad, which was correlated with an increase in head of salad. Chlorophyll content of 431 nm and chlorophyll b 453 nm, components of the absorption center that capture light energy and transfer it to the reaction center recorded the highest values in the variant treated with *Wuxal Ascofol*, which shows an intense transport of assimilated to foliar system. It was also noted that the foliar application of biostimulants to lettuce gives much better results than the application at the root level.

Key words: lettuce, photosynthesis, biostimulants