RESEARCH ON THE INFLUENCE OF CLIMATE CHANGE ON THE PHOTOSYNTHESIS PROCESS IN MAIZE

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Abstract

The general objective is the study of the photosynthesis process in corn plants, the necessary basis for the great adaptation capacity of plants to climate changes. These studies are important because they participate in the identification of solutions involved in increasing corn production and its quality. The experience was organized at the farm "*Vasile Adamachi*" within the USV Iasi, in the spring of 2021 and the analyzes on the collected physiological material were carried out in the plant physiology laboratory of the USV Iasi. The research material was represented by the hybrid DKC 4598 produced by the Bayer Group with the FAO 350-390 group. The analysis of the photosynthesis process in maize in the context of the climatic conditions specific to the growing season of 2021 was carried out by quantitatively determining of the content of photosynthetic pigments and chlorophyll fluorescence. The results obtained by the analyse of the photosynthesis process were correlated with the production obtained. The results obtained from the fluorescence analysis show us that the corn plants studied had the highest light quantification capacity in the 6 and 8 node phenophases. The recorded differences do not show an effort in the ability of the plants to adapt to the weather conditions of 2021 in North-Eastern Moldova.

Key words: maize, chlorophyll fluorescence, chlorophyll a, chlorophyll b, photosynthesis