



The long and short term effect of ozone on the photosynthetic pigment content from corn (*Zea mays*)

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The purpose of the present study was to determine the modifications of the content of the photosynthetic green (chlorophyll a and chlorophyll b) and carotenoid pigments as a consequence of long and short exposure to ozone. Firstly (the long term experience) there took place an exposure of the seeds to ozone (0,03 ppm) for 15 minutes (in alternation with 45 minute breaks) and then an exposure of the *Zea mays* seedlings, for 14 days. Secondly (the short term experience) the control seedlings, aged 14 days, were continuously exposed to ozone (0,03 ppm) for 15, 150 and 195 minutes. After this we determined the photosynthetic pigment content from the apical zone of the leaves. In the case of long term exposure, the content of pigments from the ozone exposed seedlings were 1,736mg/g, in comparison with the control, where the content was 3,41mg/g. In the case of samples exposed to ozone for 15, 150 and 195 minutes, the content of the photosynthetic pigments was 3,25 mg/g, 3,12 mg/g and 2,70 mg/g. As a result of the study, we established a direct correlation between the duration of exposure to ozone and the content in green and carotenoid pigments.