

BOOK OF ABSTRACTS



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**VARIABILITY OF MACRONUTRIENTS IN MAIZE INBRED LINES
CAUSED BY APPLICATION OF ORGANIC PEROXIDES**

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Exogenous application of chemical elicitors can be used to reduce damage of plants caused by abiotic stresses and consequently to enhance productivity. Different organic peroxides (mixed with DMSO) were used in this study with the aim to examine variations in grain yield and macronutrient status, i.e. protein, starch and oil contents, of four maize inbred lines. Peroxides in combination with DMSO were applied foliarly. Results showed that two genotypes reacted positively on applied treatments, achieving higher grain yields than control group, with difference up to 2-3 t ha⁻¹. In total, one of the applied substances expressed the highest impact on yield enhance. In terms of nutritive quality, the same treatment mostly increased the starch content. In regard to protein content, higher value was achieved by the genotype which also had higher grain yield, and for oil content, variations in results among treatments were insignificant and irregular. This indicates that various elicitors, such as organic peroxides, could be used not only for increase in grain yield, but also in modification of grain nutritional quality in regard to genotype variability.

MAIZE INBRED LINES, ORGANIC PEROXIDES, GRAIN, YIELD, NUTRITIONAL QUALITY