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DOSE DEPENDENT CHANGES IN MORPHO-PHYSIOLOGICAL PARAMETERS OF OREGANO UNDER CO AND CU STRESS

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Abstract

Effects of Co and Cu stress changes plant morphology, photosynthetic parameters and peroxidase activity in *Origanum vulgare* L. The experimental design was conducted using a pot experiment and soil contaminated with Co and Cu alone or in combination, as well as unpolluted soil. Individual application of Cu and Co decreased leaf area, stomata length and width, but at the same time induced increase of stomata number. Decrease of pigment concentration and protein content was also evident. Peroxidase activity was observed for individual metals as well as for the mix. Application of the metal mix demonstrated complexity of synergistic and antagonistic effects with significant differences in results obtained for individual and combined application of Cu and Co. Responses of plants to stressors is never result of one component, and complexity of the responses itself is usually result of not only antagonistic or synergistic effects but also genetic and physiological factors.

Keywords: heavy metals; oregano; morpho-physiological parameters

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