Influence of Cadmium on the Amount of Chlorophyllous Pigments of the *Zea Mays* Plantlets Leaves

Lucia MIHALESCU¹, Oana MARE ROSCA¹, Monica MARIAN¹, Mirela CORDEA²

¹) Department of Biology, North University of Baia Mare, luciamihalescu@yahoo.com
²) University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca

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**SUMMARY**

The study on the accumulation of some toxic elements in plants is very important, as measures are necessary to prevent the destruction of the terrestrial and aquatic ecosystems. (Onac, 2005). Man cannot act forever on the environment without endangering to break the essential ecologic balances. (Maxim, 2008).

The *Dobrogean* corn sort was used. The scheme of the experimental variants was the following: \( S_0 \) (control), \( S_1 (1 \text{ mg/l CdCl}_2) \), \( S_2 (5 \text{ mg/l CdCl}_2) \), \( S_3 (10 \text{ mg/l CdCl}_2) \), \( S_4 (100 \text{ mg/l CdCl}_2) \), and \( S_5 (200 \text{ mg/l CdCl}_2) \). The assessment of the efficiency of the chlorophyllous pigments biosynthesis was made on the 17th day from germination. Chlorophyll extracts were obtained for dosing the amounts of chlorophyllous pigments. The amount of chlorophyll was calculated for every type of solution.

After determining the amount of chlorophyllous pigments of the leaves, it was found that this amount directly lessened with the concentration of cadmium that was administered at the experimental variants. The amount of chlorophyllous pigments could not be determined for the \( S_4 \) and \( S_5 \) variants, due to the accentuated phenomenon of the chlorosis of the leaves. Three readings of the absorption were carried out for each sample. The obtained results are shown in Fig.1.

![Graph showing average amounts of leaves chlorophyllous pigments on the 17th day](image)

**REFERENCES**