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DETERMINING THE CONTENT OF Cd, Cu, Pb AND Zn IN THE LEAVES OF DANDELION (*TARAXACUM OFFICINALE* WEBB.) AND IN THE SOIL BY ICP-OES

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Dandelion (Taraxacum officinale Webb.) is a plant capable of accumulating a certain quantity of metals. The aim of this study was to determine the content of Cd, Cu, Pb and Zn in dandelion leaves and soil that have been sampled from different locations. One group of samples has been influenced by pollution sources of these metals and the other one has not been exposed to the pollutants. The amount of metals in the tested samples has been determined by inductively coupled plasma optical emission spectrometry (ICP-OES).The content of detected metals was higher in leaves and soil samples that were exposed to the negative effect of environmental pollutants, compared to those samples that were not under the influence of contamination sources. The increased content of detected metals in the samples of dandelion leaves that were under the influence of the pollutant may be the result of a synergistic effect, soil, on which this plant species thrives, and the air, that is contaminated by the effects of motor traffic and other forms of pollutants. The results of this study have shown that dandelion can provide a data of environmental pollution by the content of detected metals in its tissue. As dandelion is used in human nutrition, and since heavy metals (Pb, Cd) with cumulative and toxic effects have been detected in it, it is necessary, in order to protect human health, to check the presence and content of these metals in the dandelion plant that is used in human nutrition.

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