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HEAVY METALS IN SOILS AND VEGETABLES CULTIVATED IN SEVERAL GREENHOUSES FROM BOTOȘANI COUNTY – ROMANIA

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Abstract

In the present study the level of seven metals (Cu, Zn, Fe, Ni, Cd, Pb and Cr) was investigated in several greenhouse soils, irrigation water and vegetables, sampled from four greenhouses located in Botoșani area (NE of Romania). Some physico-chemical parameters, like pH, redox potential (E_h), electrical conductivity (EC) and salinity were also measured in the analyzed samples. Generally, the specific contamination indices indicated that the investigated greenhouse soils are uncontaminated to low contaminated with Cu, Fe, Pb, Ni and Cr and moderate contaminated with Cd. The estimated daily intakes of metals via vegetables ingestion were within the tolerable daily intakes required by the international authorities, indicating that their ingestion is safe for the consumers.

Key words: greenhouse, heavy metals, human health, soil, vegetables

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