Effects of added sewage sludge on contamination with cd by Winter Wheat (Triticum Aestivum)

Adriana BĂLAN, Gerard JITĂREANU, D.C. GALEŞ, Lucian RĂUS - USAMV Iasi Sezin ÖZTAN, P. Felix-HENNINGSEN - Institute of Soil Science and Soil Conservation, University Justus-Liebig Costică AILINCĂI - USAMV Iasi

The accumulation and transfer of heavy metals along soil-plant at experimental field were investigated. The study was conducted in the north-east of Romania at the Ezăreni experimental farm of the University of Agricultural Sciences and Veterinary Medicine Iași, during 2007-2009, in a cropping systems, viz., rape - wheat (Brasica napus – Triticum aestivum). One of the objectives of the study was to determine the risk of soil and plants contamination with heavy metals on applied sewage sludge (SS) as less expensive organic fertilizer. For assess the effect of this fertilization were applied two doses of sewage sludge (20 t/ha and 30 t/ha). The results show that cadmium concentration increased with the increasing fertilization level. On the second year, the applied of 30 t/ha sewage sludge determinate a cadmium concentration greater than safely concentration for wheat plants.