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ACCUMULATION AND DISTRIBUTION OF HEAVY METALS IN PLANTS WITHIN THE TECHNOGENESIS ZONE

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Abstract

The effects of natural (soil properties) and technogenic factors (atmospheric pollution by harmful industrial discharges, soil contamination) on accumulation of heavy metals in natural grasslands have been studied at monitoring plots located within the influence zone of Novocherkassk power station. Contamination of grass plants by Ni, Cd, Zn and Pb occurs at plots located near this station along the line of wind rose. They are contaminated with Pb and Cd through vehicular emission as well. A relationship is shown between the amount of slightly bound compounds of heavy metals in soil and their accumulation in plants. The plants are polluted by heavy metals following the scheme Cd > Zn > Pb > Cu > Mn > Ni.

Key words: bioavailability, heavy metals, pollution, translocation

Received: July, 2013; Revised final: January, 2014; Accepted: February, 2014

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