

**DISTRIBUTION OF NICKEL, COPPER AND CADMIUM IN SOD-PODZOLIC AND PODZOLIC SOILS
OF THE NORTH-EAST OF THE LUGA UPLAND**

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As a result of soil-ecological monitoring carried out in the north-east of the Luga Upland, the dominance of sod-podzolic and podzolic soils, formed on fluvio-glacial sands and binomial rocks, in the soil cover of the territory was established. The total content of Ni, Cu and Cd in the humus horizon of soils of the natural ecosystems was 1.22 ± 0.69 , 2.53 ± 0.54 and 0.12 ± 0.06 mg kg⁻¹ of soil, respectively. There was no significant increase in the content of the heavy metals in the humus horizon of postagrogenic soils in comparison with the soils of natural landscapes. At the same time, it is possible to state contamination of postagrogenic soils with copper based on an increase in the total content and coefficient of its concentration by an average of 3 times compared with the soils of the natural ecosystems. A high spatial heterogeneity of the total content of heavy metals in the humus horizon of soils was revealed. The coefficients of variation of the total content of Ni, Cu, and Cd in the humus horizon of soils of natural ecosystems were 57, 29, and 47%, respectively. In the postagrogenic soils, the coefficients of variation in the content of Cu and Cd were, respectively, 2.2 and 1.6 times higher, Ni – 1.8 times lower than in natural podzolic and sod-podzolic soils. In most of the studied soils of light texture, the average content of Ni and Cu increased down the soil profile, and the distribution of Cd over the soil profile was more uniform. In the soils of natural ecosystems, the coefficients of variation of the total content of heavy metals in the humus horizon were lower than in the underlying horizons. In postagrogenic soils, the content of the metals in the humus horizon was characterized by greater spatial heterogeneity than in the underlying soil horizons.

Key words: soil, nickel, copper, cadmium, coefficient of variation, coefficient of concentration.