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CONTENT OF HEAVY METALS IN SOILS OF PLANTATIONS OF VARIOUS FUNKTIONAL VALUE OF GREEN AREAS OF THE CITI LVIV

Upper soil with root system of trees an important biogeochemical barrier for phytotoxic compounds and is the site of the concentration of dangerous pollutants, the main ones are heavy metals. These substances, and especially their mobile forms, can accumulate in the upper soil horizons, which leads to the destruction of plant communities and is threat to the normal functioning of the city biogeocenotic systems.

The aim of work is study of soil cover of green spaces of different functions on the subject pollution with heavy metals and comparison of agrochemical and ecotoxicological (pollution with heavy metals) indicators depending on the degree of anthropogenic load.

It is presented in the article the results of soil cover research of park, street and suburban planting of the urban ecosystem. The agrochemical and ecotoxicological indicators of topsoil of green planting of Lviv and suburban zone are showed. Changes of agrochemical properties and content of mobile forms of heavy metals of soil cover of street, urban and suburban planting depending on the degree of anthropogenic load are analyzed.

The obtained results showed that urban soils of the city Lviv cannot fully perform their ecological functions as a result of breach of their stability and pollution of heavy metals. Experimental studies was found that agrochemical indices of soil cover of green zone of Lviv, despite on the strong transformation is quite favorable. Best indicators were found in suburban environments where were optimal environmental conditions for plants, less favorable soils were in outdoor conditions.

In large quantities in urban soils was revealed exceeding the maximum permissible concentration of MAC copper, lead and zinc, especially in artificial layers that we see in soils of street plantings.

Somewhat less pollution by pollutants was found in conditions of city park, but these values are also high due to proximity to motorways, recreation and “unsuccessful” relief. It was established the exceeding of MAC lead in the suburban soils. This fact evidently is explained so much the laying of the park was carried out on anthropogenic soils contaminated with this element.