Original article

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Heavy Metals in *Tussilago farfara* Plants under Transport Load Conditions

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Abstract. *In the article the content of heavy metals (HM): Cd, Co, Cu, Cr, Ni, Pb and Zn in above-ground and underground organs of Tussilago farfara L considered. This object is widely known as a medicinal raw material (Tussilaginis farfarae folia). This is a pioneer species of disturbed habitats. Samples for research were collected in early August along a road with heavy traffic in the Kedrovka microdistrict (Kemerovo). The elemental chemical composition was determined by atomic emission spectroscopy after dry ashing. The concentration of heavy metals in T. farfara leaves from techno-disturbed ecotopes is 1.5 to 2.5 times higher than in roots. This is not typical for grass plants and is associated with increased plant dust and foliar TM intake into the above-ground organs. In the dead leaves, only the Cu content was comparable to the level in the living leaves, the number of other elements studied was 2 times or more. This is also due to the anatomo-morphological peculiarities of the plant. The content of Cd and Pb in all samples of T. farfara according to the State Pharmacopoeia of the Russian Federation is within the permissible limits. The results of other researchers on the absence of contamination of plants T. farfara by these elements under a man-made load in the territory of the cities of Novosibirsk and Tyumen are confirmed. It was found that even under high technological load conditions, very high concentrations of TM in plants of Tussilago farfara are not observed. It is recommended that this species be considered as an object for monitoring the effect of particulate matter on plants and studying the foliar pathway of TM.*

Key words: *coltsfoot, heavy metals, anthropogenic load, leaves, roots.*

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