

POTENCIJALNI EKOLOŠKI RIZIK OD SADRŽAJA ŠTETNIH MIKROELEMENATA U ZEMLJIŠTIMA OPŠTINE PANČEVO (SRBIJA)

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ABSTRAKT

U ovom radu izvršena je procena potencijalnog ekološkog rizika od sadržaja štetnih mikroelemenata u zemljištima Opštine Pančevo. Sadržaji štetnih mikroelemenata u zemljištu su važni sa aspekta zaštite životne sredine, posebno u oblastima sa visokim antropogenim uticajem. Pančevo je grad na jugu Vojvodine, na ušću Tamiša u Dunav, i jedan od najvažnijih industrijskih centara u Republici Srbiji. Cilj ovog rada je da se utvrdi uticaj industrije na sadržaj štetnih mikroelemenata u zemljištu, kao i potencijalni rizik od sadržaja štetnih mikroelemenata u zemljištu. Uzorci zemljišta su uzeti na napuštenim poljoprivrednim zemljištima na 25 lokaliteta. Na svakoj lokaciji zemljište je uzorkovano po fiksnim dubinama od 0-10, 10-20 i 20-40 cm. Sadržaj štetnih mikroelemenata (Zn, Cu, Pb, Fe, Cd, Cr i Ni), ekstrahovanih iz zemljišta rastvorom carske vode, određena je AAS metodom. ArcGIS softver je korišćen da pokaže prostornu distribuciju različitog sadržaja štetnih mikroelemenata i indeksa zagađenja. Kvalitet zemljišta je definisan u skladu sa indeksom zagađenja. Na sadržaj teških metala u zemljištu uticaj imaju kako matični supstrat i svojstva proučavanih zemljišta tako i antropogene aktivnosti.

Ključne reči: štetni mikroelemenati, prostorna distribucija, ekološki rizik, zemljište

POTENTIAL ECOLOGICAL RISK OF SOME TRACE ELEMENTS CONTENT IN SOILS OF PANČEVO MUNICIPALITY (SERBIA)

ABSTRACT

In this paper preliminary has evaluated the potential ecological risk of trace elements content in soil of Pančevo municipality. Trace elements are important environmental pollutants, particularly in areas with high anthropogenic pressure. Pančevo is a town on

he average monthly air temperature and relative air humidity are shown for July August (the period in year with the most prominent extremes). Thus, the average monthly temperature in July was the lowest in 2010. year (21.2°C), and the highest in 2012. year (25.2°C). Compared to the average air temperature in July, in August, the lowest average monthly air temperatures recorded in 2012. year (25.2°C), and the lowest 2010. year (21.7°C).

In the period of research the greatest anomaly was recorded in September 2011 and 2012. year. The average mean monthly air temperature was 20.9°C. This temperature was in comparison to 2009. and 2010. higher by 2.1 and 4.9°C respectively.

The average relative humidity in this period was lowest in August. The lowest value was in August 2012 (48.6%), and the highest in 2010 (79.2%). The quantity of available water depended on hydrological conditions throughout the year. If hydrological conditions were closer to normal, the water soil supply was higher in years 2010 and 2014). Long periods of drought led to relatively uniform reductions in the quantities of available water in the soil, and thereby caused unfavorable conditions for plant growth.

Key words: Quercus frainetto, Quercus cerris, soil moisture