

THE QUALITY OF WATERS FROM JIU RIVER BASIN AS INFLUENCED BY HUMAN ACTIVITY

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Abstract

The paper presents the quality indicators of Jiu River in 2011 and 2012 years as influenced by human activity, especially fertilizers and manure application in 33 communes within Jiu River basin. The fertilizer quantity applied on a hectare varied between 22.5 and 68.5 kg/ha and the nitrogen quantity from manure ranged between 3 and 20 kg/ha; a certain amount of these applied fertilizers and manure have been leached into soil profile or have been subject of surface runoff. In 2011 there was analyzed the water from Jiu River by taking water samples at 6 dates (14.01; 09.03; 03.05; 06.07; 09.09 and 10.10) and there was determined that the NO₃, NO₂, Nt and Pt contents were over MAC (Maximal Admissible Content) because of industrial spill and urban sewage slurry as well as of chemical fertilizers and manure. At water supplying stations from Jiu River basin all water quality indicators show a very good quality of water. In 2012 year the NO₃, NO₂, Nt and Pt contents were over MAC and the heavy metals content was under MAC, excepting Cu which overpasses MAC.

Key words: water quality indicators, Jiu River, fertilizers, manure
