

THE DEGREE OF SOIL FERTILITY IN THE DRAINAGE BASIN OF RÂUL ALB STREAM, DÂMBOVIȚA COUNTY, UP TO THE POINT IT MEETS BĂRBULEȚU STREAM, EXPRESSED THROUGH THE SOIL REACTION AND THE SUPPLY OF NUTRIENTS (ORGANIC MATTER, NITROGEN, PHOSPHORUS AND POTASSIUM)

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Abstract

The field research took place in the interval 2019-2020, in the higher drainage basin of Râul Alb stream, located in the north-western part of Dâmbovița County, the analysis covering an area of 4034 ha. The research into the complex phenomena of erosion in the analyzed area was based on a pedological study, which consisted in performing 46 pedological profiles in representative areas of the analyzed region. After centralizing the results, it was noted that 59.42% of the entire analyzed area display a low alkaline reaction, at least at the level of the upper layer, because of its CaCO₃ content, which exacerbates the risk of landslide. From the point of view of the supply of nutrients (humus), most of the soils have a low and extremely low supply of these elements at the level of the upper layer, namely 73.42% of the analyzed area; as for the nitrogen supply, 26,68% of the entire surface of the drainage basin display severe shortages of this element. The situation is really serious in the case of the supply of mobile phosphorus in the soil, 3280.27 ha of the analyzed surface are low and very low in phosphorus, namely 76.20%, while the levels of potassium supply in the soils in the higher drainage basin of Râul Alb stream are mostly moderate and good, only 620.85 ha (14.42%) are extremely low and low in potassium supply.

Key words: drainage basin, organic matter, nitrogen, phosphorus, potassium