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"Gheorghe Asachi" Technical University of Iasi, Romania

PHYSICAL AND CHEMICAL CHARACTERIZATION AND FLORISTIC PECULIARITIES OF A SOIL AFFECTED BY ANTHROPIC ACTIVITIES

Teodora Alexandra Zotica[1], Simona Dumitrița Chirilă[2], Cătălin Bălan[1], Irina Volf[1]*

[1]"Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania
[2]"Alexandru Ioan Cuza" University of Iaşi, Faculty of Biology, 20A, Carol I. Blvd., 700505, Iaşi, Romania

Abstract

In last years, a significant decline in soil quality has occurred due to contamination caused by anthropic activities. These lead to adverse changes in soil physical, chemical and biological attributes and drastically reduce soil fertility. There currently are no generally accepted criteria to evaluate changes in soil quality. This lack impedes the design and evaluation of meaningful soil management programs. This paper examines the principal physical, chemical and biological characteristics that can serve as indicators of a change in soil quality under particular anthropic pollution. The proposed indicators include bulk density/penetration resistance, pH, soil organic matter, nutrient availability, heavy metal concentration and floristic peculiarities in terms of number of species, subspecies and varieties, the presence of different families of vascular plants and categories of life forms. We also discuss the justification for selecting these key attributes and critical concentrations for changes in soil quality. All these data represent inputs for a diagnostic analysis of a polluted area.

Key words: soil quality, pollution, physical and chemical characteristics, floristic elements

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* Author to whom all correspondence should be addressed: e-mail: iwolf@tuiasi.ro