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Methodological Aspects of Soil Health Assessment

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ABSTRACT

People have been studying human health (living organisms) and ways to preserve it for several millennia. However, there are still many unsolved problems. Soil and environmental health research is only two or three decades old. This scientific field is just emerging. Defining the concepts of "environmental health" and "soil health" is a major scientific problem, and assessing the health of soils and the environment is a complex methodological task. To date, there is no generally accepted definition of the concept of "soil health". Accordingly, there is no agreement on the parameters for its assessment. Soil health is best understood as the ability of the soil to fully perform its ecological functions in the ecosystem. If the ecological functions are impaired, the soil is unhealthy (sick) and must be treated (restored). We have developed an Eco-biotechnology for assessing the health of the soil (or the degree of its impairment) based on the degree of impairment of the ecological functions performed by the soil in an ecosystem (natural, agroecosystem or urban ecosystem), based on the integral indicator of biological state (IIBS) of the soil, calculated using the most sensitive and informative biological indicators.

Keywords: soil health, ecosystem functions of soils, integral indicator, ecotoxicity, environmental regulation

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