



Impact of soil types and management practices on soil microbiological properties - a case study in salt affected area of Hungary

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The impact of different land use systems on soil microbiological properties in salt affected soils were investigated in the Nádudvar region of Hajdu-Bihar County, Hungary. The study area is characterized by associations of Solonetz and Chernozem soils. Soils were collected from both arable (cultivated) and pasture (non-cultivated) land from the upper 15 cm, in May, 2016. Besides soil physical and chemical properties (SOM, pH, CaCO₃, EC, E4/E6, available macro, meso and micro nutrients and moisture content), soil microbiological properties were also investigated, phosphatase and dehydrogenase activities of the samples were measured, as well as soil microbial biomass carbon (MBC) and soil microbiological respiration. The results were statistically compared on the different soil types and land uses. It was concluded that land management has greater impact on soil microbiology than inherent properties or soil types.