

Effect of sewage-sludge metals on microbial communities of gray forest soil

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Abstract

The influence of model sewage-sludge samples containing different amounts of metals (Hg, Cd, Ni, Pb, Cr, Cu, Mn, Zn) and As on the microbial biomass, the population of some groups of microorganisms, their respiratory and nitrogen-fixing activities, and the activity of some soil enzymes was studied. The most sensitive parameters were found to be the microbial biomass, nitrogen fixation intensity, Azotobacter population, and the metabolic quotient. These parameters are recommended as indicators of the soil pollution by metals added with sewage sludge. © 2002 by MAIK "Nauka/Interperiodica" (Russia).
