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Effect of sewage sludge on heavy metal uptake of spinach

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Sewage sludge usage has caused some problems for many years but its content of N,P and organic matters has made it a very valuable fertilizer. The irregular use of sewage sludge in agricultural lands may result in accumulation of heavy metals in soil and subsequently soil contamination which as a result these elements may be absorbed by plants. The purpose of this research is to investigate the effect of sewage sludge on absorption ability of heavy metals by Spinach. This research was conducted in the form of a completely randomized design containing three replications with 5 land treatments of sewage sludge (0,12.5,25,50,75) ton/ha. The results of this study show that the application of sewage sludge to land increases the total amount of Pb in soil but didn't make any significant differences in concentration of Pb and Cd in plant.

Keywords: Sewage sludge, Heavy metals, Absorption ability, Spinach

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