

عنوان مقاله:

Assessment of Heavy Metals in Soil from Selected Farmlands in Nasarawa West, Nasarawa State, Nigeria

محل انتشار:

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خلاصه مقاله:

We refer to heavy metals as metallic element of relatively high-density when compared with its sizes and could be very toxic even at low concentration. Furthermore, these metals are among the major environmental pollutants based on their contribution on the quality of ecosystem. This work is to study heavy metals in soil from selected farmlands in Nasarawa West, Nasarawa State. Various samples of soil were obtained from various farmlands and spread to dry under normal temperature, later which standard methods was used to digest them with acid. Atomic Absorption Spectrophotometer (AAS) was utilized to obtain the concentration of these metals in mg/kg (Zn, Fe, Cu, Cd, Ni, and Cr). The mean levels obtained in the soil samples were (mg/kg) 94.90 ± 0.013 for Fe, 18.36 ± 5.679 for Zn, 2.296 ± 0.604 for Cu, 1.710 ± 0.430 for Ni, 0.472 ± 0.264 for Cr, 1.140 ± 0.068 for Cd, and 0.067 ± 0.013 for Pb. The outcome of this work depicts that the concentration of these metals in the samples of soil differs based on the manner with $Fe > Zn > Cu > Ni > Cr > Cd > Pb$ across the four locations including these control site. The metals were noticed in the samples of soil and values obtained were within the acceptable international standard for soil. The results show that there would not be risk associated with consumption of food crops and vegetation in the study area by human and animal populations, because of the hazardous nature of Cd, Pb with no known health benefits.

کلمات کلیدی:

heavy metals, Farmland, soils, Vegetation, Crops

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