

P42. ASSOCIATION BETWEEN HEAVY METALS AND SOIL PROPERTIES

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The fate of heavy metal pollutants determines with mineral deposits, volcanic activity, industrial and municipal wastes, motor vehicle exhausts, sewage waters, unconsciously application of fertilizers and pesticides, faulty irrigations in the ecosystem. The amount of heavy metals in the soil depends on uptaken amount of heavy metals by plant, leaching and sorption. Some plant species prevents accumulation high levels of heavy metals in nature. Plants are accumulated heavy metals via roots to leafs and thus they are reduced heavy metal pollution in the soil. This period in plant are intensively affected by soil properties such as pH, organic matter contents, clay, hydrous oxides, and free carbonates, cation exchange capacity. In general, soil pH has important effect in the solubility or retention of heavy metals in soils. Heavy metals are a greater retention at high soil pH in soils. Organic matter has an essential role in agricultural processes. It increases cation exchange capacity and enhances soil fertility. Heavy metals by the effect on the activities microorganisms are effective in biological and chemical mechanisms in the soil. Also, metals are strongly adsorbed on the clay fractions and by hydrous oxides of iron, aluminum, manganese in soils. In this study, there will be discussed association between biological and chemical properties of soil with toxic levels of heavy metals found in soil.