Effects of Municipal Wastewater on Accumulation of Nutrients and Heavy Metals in the soils of Guntur

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ABSTRACT

A study was carried out to investigate the effects of municipal wastewater on accumulation of nutrients and heavy metals in soil. The soil samples were collected at eight different locations in Guntur and soil characteristics such as soil reaction (pH), electrical conductivity (EC), organic matter (OM), extractable Fe, Mn, Cu, Zn and heavy metals such as chromium, nickel and lead were measured. The research study showed that use of municipal waste water in irrigation provided soils with sufficient levels of nutrients such as Nitrogen (N), Phosphorus (P) and Potassium (K), Sulphur and other micro-nutrients. The heavy metal concentrations are well below hazardous levels in almost all the experimental sites. This study showed that municipal sewage water can be used safely for irrigation. It enriched the soil mineral nutrients and improved the fertility of soils.

Key words*: Heavy metals, Sewage.*