



The Proficiency of Different Matured Compost in Suppressing the Uptake of Heavy Metal by *Jatropha Curcas* L, Castor Bean and Sunflower Plants

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Abstract: Contaminated sewage sludge with high levels of heavy metals are of great concerns where it influence on soil, plants, aquatic life and human health. The composting was considered to be the cheapest and most reliable technique for sewage sludge stabilization and resemble soil conditioner in agricultural applications. However, the presence of non-biodegradable and high level of toxic heavy metals in the sewage sludge frequently hinders agricultural land application. A field study was performed to evaluate the different composting media proficiency in decline heavy metals transfer to the edible parts of three cultivated plants (*Jatropha curcas* L , Castor bean and Sunflower).The results cleared that there are significant differences in heavy metal concentrations in root and shoot in the different plant types. The amount of accumulated Pb in roots were higher than the translocated amount into shoots for *Jatropha curcas* L , Castor bean and Sunflower seedlings.
Keywords : Bio Concentration Factor(BCF), Castor bean, Compost, Heavy metals, *Jatropha curcas* L ,Sunflower, Translocation Ratio (TR) and Transfer factor (TF).