

SUBSTANTIATION OF MECHANICALLY TREATED MUNICIPAL SOLID WASTES AS FERTILIZER FOR CORROBORATION WITH URBAN PLANNING AND SUSTAINABLE APPROACH

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Abstract

The Municipal solid waste (MSW) includes biodegradable materials such as food and kitchen waste, vegetables, flowers, leaves, fruits, grass and paper which are subjected to shredding and mixing together to form fine sized compost products. Macronutrients such as N (0.70%), P (0.14%) and K (0.82%) were found in the compost. The characteristics indicated the presence of appreciable quantity of nutrients such as Nitrogen (N), Phosphorous (P_2O_5), Potassium (K_2O), Calcium, and Magnesium along with the micronutrients Iron, Manganese, Zinc, Copper, in the prepared compost which helps in plant growth. Studies indicate that, the method besides reducing the problem of disposal, also converts the garbage in to a nourishing agent. Thus it is a good method for MSW management, solving environmental pollution problems. The present study confirms the quality of mechanically treated MSW for its corroboration with urban planning and sustainable approaches.

Keywords: Solid wastes, management, urban planning, sustainable development