

MUNICIPAL SOLID WASTE – A METHOD FOR AN EFFICIENT PRODUCTION OF COMPOST

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ABSTRACT

The municipal solid waste is a major concern worldwide. In this paper, it is proposed that the biodegradable part of the municipal solid waste, called BSW, can be efficiently composted with wastewater sludge, wood ash, coal ash, and/or lime-kiln dust to improve the profile of the compost. In addition, anaerobic decomposition followed by vermicomposting is pointed as one of the best and efficient MSW treatment system, since it may reduce total time of the composting process. Furthermore, it generates liquid fertilizer and biogas, which provides energy to supply the composting plant. This makes the plant auto-sustainable in energy. Finally, this composting model is exemplified using real data from the City of Milwaukee, Wisconsin, USA.

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