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Analytical Studies on the Impact of Bio-Medical Waste on Garden and Landfill Soil

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Abstract : The objective of the present study is to investigate the biomedical waste management system, including policies, practices (i.e., storage, collection, transportation and disposal), and its compliance with the standards prescribed by the Biomedical Waste (Management and Handling) Rules 1998. The analysis consisted of interviews with medical authorities, doctors, and paramedical staff involved in the management of the biomedical wastes in the healthcare facilities. A general survey of the healthcare facilities was undertaken to ascertain the efficacy of the implemented measures. The Bio-Medical Waste (BMW) assessment performed in the identified health care centres lead to a conclusion that problems associated with poor management of the Bio-Medical waste are immense and crucial. It was observed that hospitals have overall good management of Bio-Medical waste, whereas small clinics generating small quantum of Bio-Medical waste of category 3 and 6 lack in hygienic management of Bio-Medical waste. Attempts were taken to identify and study the phytoremediation methods of treating the Category 3 and 6 Bio-Medical wastes collected in small clinics which are most often mixed with Municipal Solid Wastes (MSWs). This observation led to study the variation of pH and conductivity of land fills soil and normal garden soil before and after category 3 and 6 BMW contamination. There is also a need to create awareness among the personnel associated in handling the waste.

Keywords : Bio-Medical waste, conductivity, EDAX, healthcare centers, pH, phytoremediation.

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