Enrichment Of Biowaste Compost By Kota Stone Industrial Waste

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Present day stone industry is recognized as one of the fastest growing sector in the Indian economy. Stone cutting industry is a classic example of unscientific mixing and improper waste disposal regardless of aesthetic senses and proper land use practices. Excavation and disposal of large quantity of waste in Kota stone industry costs about 25%-35% of the total cost of production. Improper waste disposal has caused land degradation, ponding and flooding of water, visual impact, loss of aesthetics, pollution and health & safety hazards. It adversely affects the fertility of the soil. The problem of handling of industrial wastes needs attention and requires a high level of management .The proper management of industrial waste is a must to enhance the economic growth and to reduce the environmental degradation and health hazards. The waste contains many organic and inorganic materials which can be transformed into certain useful, valuable and more accessible forms. The chemical analysis of Kota stone waste was carried out through XRF. This analysis reveals the presence of certain micro, macro and ultra-micro elements which can be of great potential as soil amendment and beneficial for the proper growth of the plants. Kota stone waste can be converted chemically into suitable form and mixed with the vermicompost to enrich the latter. This attempt of converting waste into valuable product is useful in improving the fertility of soil and crop productivity. The outcome of this study is very encouraging and useful for the growth of plants.

Keyword: - Kota stone waste, Environmental impacts, Waste management, Macro and micro nutrients, Compost.