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CHARACTERISTICS AND FEASIBILITY STUDY OF SEWAGE SLUDGE FOR LANDSCAPING APPLICATION IN XI'AN, CHINA

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Abstract

By investigating the basic physicochemical characteristics, nutrients (nitrogen, phosphorus and potassium) and heavy metal concentrations of the excess sludges from four wastewater treatment plant (WWTP) in Xi'an city, the feasibility of applying sewage sludge to landscaping in Xi'an was studied. The results showed that the basic physicochemical properties of sewage sludge satisfy the requirement of most plants growth. The sewage sludges are rich of organisms, nitrogen and phosphorus, but relatively lacking in potassium. Meanwhile, most sewage sludges can meet landscaping requirements for contents of heavy metals. The experiments on seed germination suggested that sludge has some inhibiting effects on plants' germination and growth. Based on the comprehensive analysis, sewage sludge has been demonstrated with potential application of urban landscaping.

Key words: landscaping, sewage sludge, sludge characteristics, waste water treatment plant

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