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INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION

“CLEANER PRODUCTION INITIATIVES AND CHALLENGES FOR A SUSTAINABLE WORLD”

Use of Cleaner Production Techniques to Recovery of the Soils and Reuse of the Sewage

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Abstract

In this study is reported a methodology for reusing of the construction building waste (CBW) in agriculture, to better of the degraded soil, thus contributing with the waste decreasing, material extraction and inadequate disposal of these waste. It used a layer of construction building waste for treatment of sewage collected of the Station of Sewage Treatment of SANASA from Campinas (Brazil) was treated by decantation process, using as the precipitating agent a compound obtained from construction building waste. For humus production the sludge from decantation process was mixed to the degraded soil and after 15 days maize seeds were germinated. The liquid from sewage was also treated by microfiltration to obtain the reuse water and applying in the irrigation. The best condition of humus production was evaluated by factorial planning and response surface methodology. Results had proven to improve in soil fertility by using humus produced from sludge composed of a mixture of crushed construction waste and raw sewage, as well as irrigation using treated sewage water is possible.

Keywords: *reuse, sewage, construction building waste, humus, sustainability.*
