

The Manufacture and Evaluation of an Artificial Soil Prepared from Fly Ash and Sewage Sludge

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KEYWORDS: fly ash, sewage sludge, soil ameliorant, heavy metals

ABSTRACT:

Fly ash and sewage sludge can be synergistically used to produce an artificial soil. The pasteurisation of the sludge is dependant upon the exothermic reaction and initial alkalinity of the mix.

The methodology employed and the augmentation of the alkalinity of the Class F ash used is described.

Biological analysis of the mix (Sludge, Lime, ASH ie SLASH) indicates a destruction of pathogens. This treatment process is sufficient to render the sludge as environmentally acceptable as it meets the USEPA PRFP (Process to Further Reduce Pathogens) criteria.

The SLASH product was added to clay, sandy and acidic soil on which corn, beans and potatoes were grown. The impact on growth and the translocation of trace metals present in the SLASH were monitored. These results will be presented and discussed.