Journal of Research in Ecology

An International Scientific Research Journal

Bioremediation of textile effluent using *Aspergillus niger* Van Tieghem.

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ABSTRACT:

Bioremediation is the most promising and less expensive way for cleaning up pollution contaminated soil and water. Mycoremediation utilises, mainly microorganisms, e.g. yeast or fungi to clean up contaminated soil and water. The contamination of toxic chemicals and heavy metals in the environment is an ever increasing and serious issue which threaten humans, animals, and the present ecosystem. Textile waste water was collected from Guindy (SIDCO Industrial Estate) and its physico-chemical parameters was analysed based on APHA. *Aspergillus niger* Van Tieghem was the test organism, collected from the culture collection centre, Centre for Advanced Studies in Botany, University of Madras. Fungal culture was maintained in Murashige and Skoog medium and further experiments were conducted in these media and amendments. *Aspergillus niger* was grown in different concentrations of the effluent. Mycoremediated effluent were used as foliar sprays (sprayed twice of 100 ppm concentration) on *Solanum nigrum* Linn.. After 30 days parameters such as height of the plant, length of the leaf and chlorophyll, carbohydrates, protein and lipid were determined.

Keywords:

Mycoremediation, *Aspergillus niger, Solanum nigrum*, physioco-chemical, morphological and Bio-chemical parameters.