



Pilot Plant Of SHEFROL Phytoremediation Technology For Treating Greywater Of A Typical Indian Village

IJEP 41(6): 668–672 : Vol. 41 Issue. 6 (June 2021)

Full Text

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Abstract

The appropriateness of a recently patented phytoremediation technology based on a sheet flow root level (SHEFROL®) bioreactor was tested by installing and operating a pilot plant in a typical Indian village (Chinnakalpet, Puducherry). The system was able to handle significant diurnal variations in greywater inflows and strength with remarkable robustness. It reduced suspended solids, chemical and biological oxygen demands and total Kjeldahl nitrogen of the greywater to the extents of 96.1 ± 1.5 , 79.8 ± 3.3 , 77.7 ± 0.4 and $41.8 \pm 3.9\%$ at hydraulic retention time of just 2.2 ± 0.3 hr. The treated water met the standards of discharge on land set by India's Central Pollution Control Board.

Keywords

Greywater, Water hyacinth, Salvinia, Treatment, SHEFROL bioreactor

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