



“Gheorghe Asachi” Technical University of Iasi, Romania



EFFECT OF CO-COMPOSTING ON HELMINTH EGGS REMOVAL

Loubna El Fels^{1,2}, Abdelghani El Asli³, Yedir Ouhdouch⁴, Mohamed Hafidi^{1*}

¹Laboratory of Ecology and Environment (L2E) (Unit Associated with the CNRST, URAC32), School of Science Semlalia, Cadi Ayyad University, Marrakesh, Morocco

²Higher Institute of Nursing Professions and Health Technics, Marrakech-Safi, Morocco

³School of Science and Engineering, Al akhawayn University in Ifrane, BP: 1846, Ifrane, Morocco

⁴Laboratory of Microbiology, School of Science Semlalia, Cadi Ayyad University, BP: 2390, Marrakesh, Morocco

Abstract

This study concerns the effectiveness of helminth eggs elimination during co-composting of activated sludge from a wastewater treatment plant mixed with ligno-cellulosic waste in a ratio of either 1/3-2/3 or 1/2-1/2 for 180 days. The Analysis of the initial sludge showed a load of 4-27 nematode eggs /g fresh matter identified as *Ascaris* sp., *Capillaria* sp. and *Trichuris* sp. During the co-composting stabilization phase, the reduction of the number of eggs varied between 50 and 90%. At the end of the process, reduction reached 100% for all the helminth ova. These results confirm the effectiveness of co-composting on their removal. Thereby, the final compost complied with the WHO guidelines for the safe reuse of fecal sludge.

Key words: co-composting, helminth eggs, palm tree waste, sewage sludge

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