

AB234

EFFICIENCY OF BIOCHAR IN IMMOBILIZING LEAD AND CADMIUM IN MUNICIPAL SOLID WASTE COMPOST :WILL THE RAW MATERIALS AND THE PYROLYSIS TEMPERATURE HAVE AN IMPACT ON IMMOBILIZATION POTENTIAL?

P.M.K.T.Kaushalya¹ , P.I.Yapa¹ , W.M.J.Weeraratne²

The recent upsurge of composting the degradable fractions of municipal solid waste) MSW(in Sri Lanka has not been built on successful settings, mainly due to lack of technology and investment. There are a number of challenges unique to MSW which need to be addressed .The presence of heavy metals in the degradable fractions of MSW is one of them .Composting with contaminated MSW results municipal solid waste compost)MSWC(with heavy metals in the content .Then the product cannot be considered safe to use as manure for crops because, heavy metals are unfavourable for crop growth and agriculture due to the bioaccumulation of them in both plants and animals which results serious health issues .

Key words:*Municipal solid waste compost, Pb and Cd contamination, biochar*

¹ Department of Export Agriculture, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka

² Central Environmental Authority, Battaramulla