New Agriculturist, **23**(1) : 67–69, 2012

Immobilization and uptake of heavy metals in sewage sludge applied soils blended with lime, red mud and PSB by coriander leaves

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Received January 9, 2012 and Accepted March 22, 2012

ABSTRACT : The field experiment conducted in clay loam soil to study the effect of two levels of sewage sludge (10 t/ha and 20 t/ha) amended with lime, red mud and PSB indicated heavy accumulation of Cd, Pb and Zn to a level of 0.82, 0.78 and 1.60 mg/kg in soil but substantial reduction are observed to a level of 0.45, 0.50 and 0.70 mg/kg with lime addition. Red mud reduced these metals to a level of 0.42, 0.49 and 0.65 mg/kg, the ability of lime was due to its alkaline nature and red mud Fe/Al oxides besides alkalinity which proved more effective in the immobilization as well as reduced uptake by spinach leaves.

Key Words: Immobilization, alkaline nature, lime, red mud, PSB, sewage-sludge.