

Phytoremediation studies on arsenic contaminated soils in Malaysia

ABSTRACT

Arsenic is a heavy metal that can exhibit both metallic and nonmetallic properties; concentrations in uncontaminated soil are generally in the ranges of 0.2 to 40 ppm while contaminated soils have been recorded to reach concentrations of up to 2500 ppm. Although arsenic can exist naturally, arsenic contamination occurs due to anthropogenic activities like the smelting of metals, vehicular emissions and the application of pesticides. Inorganic compounds of As can be very harmful to animals and human beings, effecting the nervous and cardiovascular system which eventually leads to death. As Malaysia faces increasing contamination problems, phytoremediation could prove to be savior as it is not only cheap, but also efficient. *Cyperus rotundus*, *Imperata cylindrica*, *Ludwiga octovalvis*, *Lycopodium cernuum*, *Melastoma malabathricum*, *Mimosa pudica* and *Nelumbo nucifera* are few plant species planted on soil contaminated with As.

Keyword: Arsenic; Phytoremediation; Green technology