Combatting Lead Contamination Crisis Using Macrophytes

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Over the last few years lead has been a large problem throughout the United States (1). Lead has impacted many states, cities, and even schools (1). One such city, Flint, Michigan is currently having a water contamination crisis; however whilst the most known lead contamination sight, does not even rank among the most dangerous in the United States(3). Over 3,000 towns and cities across the US have reported larger quantities of children poisoned with lead than Flint and a percent of children with elevated blood lead levels reaching up to 50% (3). Lead poisoning and elevated lead levels are a form of NeuroToxicity that causes long term cognitive effects such as memory loss and an intelligence deficit especially in young and underdeveloped brains and bodies(1). This study's objective is to use macrophytes to derive lead from water in an attempt to find a solution to the Lead Contamination. The data suggests that macrophytes took up more than 99.9% of the lead in the aqueous environment and can be used as a water detoxification method.

Awards Won: