Absorb Heavy Metals from the Polluted Soil by Using Zeolite Till Reach the Required Value of Heavy Metals

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The U.S. Environmental Protection Agency (the Agency for Toxic Substances and Disease Registry (ATSDR) has complied priority list in 2001 called the “Top 20Hazardous Substances” as The heavy metals Arsenic, Lead, Mercury, and Cadmium ranked 1st, 2nd, 3rd, and 4th as each heavy metal element has its human health risk effect ? generally soil pollutants are carcinogenic in fact soil pollution effect the environment and can change suitable life shape and threatens human being as United Nations Food and Agricultural Organization states said that 20 million hectares (49421076.293 acres) are abandoned due to Contact with contaminated while Food production will have to increase at least 40% as (Within 40 years, there will be over 2 billion more people) so , from researches , surveys and statistics : soil pollution challenge is necessary to be solved to anneal human being that Announced the purpose of this project (treat soil from its over exist heavy metals in high efficiency and applicable strategy to hold the diversity of countries economy)to absorb heavy metals from the soil a carboxylic material called zeolite(50g) was modified to soil content (meter ^2)as a ion exchange resign for 72 hour in 35 degree c. As a result the ratio of zinc (Zn)reduced from 2 4.81 Mg/kg to 8.08 Mg/kg, Lead (Pb) from 63.3 Mg/kg to 15 Mg/kg, Nickle (Ni)from7.2 Mg/kg to1.06 Mg/kg and the cadmium (Cd) from1.05 to 0.36 and the target of saving our food and our health was achieved.

Awards Won: