

Review Form 1.7

Journal Name:	Asian Plant Research Journal
Manuscript Number:	Ms_APRJ_119543
Title of the Manuscript:	PHYTOREMEDIATION OF ARSENIC (As), LEAD (Pb), AND MERCURY (Hg) CONTAMINATED SOIL USING Helianthus annuus L. (SUNFLOWER)
Type of the Article	

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>The manuscript is significant for studies on heavy metal pollution. In terms of style and layout, the manuscript is reasonably arranged. The collected data and analysis methods are presented in detail. However, the author has not done some important parts so the research results are not really clear.</p> <p>Some issues the author needs to fix</p> <ul style="list-style-type: none"> - The author has quantitatively analyzed the metals As, Pb, Hg in soil samples but has not seen them presented in the data table? Analysis of a control soil sample is required (soil has not been polluted, but in nature, the soil itself may contain Pb, As, and Hg to a certain extent). From there, we can evaluate the level of Pb, As, Hg pollution in the experimental soil sample - Pb, As, Hg can accumulate in many different parts of plants such as roots, stems, leaves, and flowers. The level of accumulation in these parts is also different. Therefore, if we only analyze the content of the above metals and metalloids in leaves, it is not comprehensive. - The author should analyze the Pb, As, and hg content in soil samples after planting. Then compare with their concentration in the soil before planting. From there, determine the level of reduction of the above metals caused by the absorption ability of plants. From there, we can evaluate the ability of sunflower plants to clean heavy metals in soil. However, it is also necessary to clearly state the process of caring for the tree, what type of water and fertilizer to use - can they further pollute the above metals into the soil? <p>It is possible that the Pb, As, and Hg contents in the soil samples collected by the author at the landfill were all low, leading to the analysis results of the Pb, AS, and Hg contents in the leaf samples being lower than the detection limit. This causes ambiguity in the research results. In this case, the author should artificially pollute soil samples with different concentrations of heavy metals (eg: 0.01mg/kg dry soil; 0.1mg/kg, 1mg/kg...etc), then evaluate the possibility of absorption of heavy metals by Sunflower plants. From there, it is proposed to use sunflowers to clean soil in areas with any level of pollution to bring maximum efficiency.</p>	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	yes	
<p>Optional/General comments</p>	The manuscript needs to be revised according to the above comments	

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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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