Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_127237
Title of the Manuscript:	The combined effect of Arbuscular Mycorrhizal Fungi and Arsenic doses on Oxidative stress of Leuceana leucocephala
Type of the Article	

PART 1: Review Comments

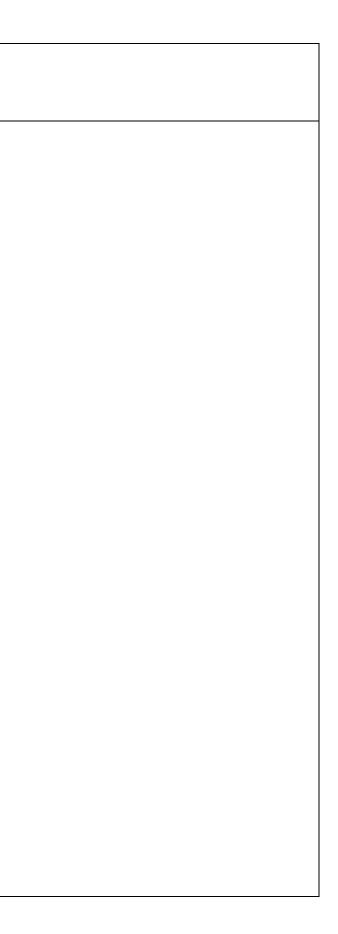
Compulsory REVISION comments	Reviewer's comment	Author's Feedback (I part in the manuscript. his/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.		
Are subsections and structure of the manuscript appropriate?		
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

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Minor REVISION comments		
Is the language/English quality of the article		
suitable for scholarly communications?		
Optional/General comments		
	This study investigates have laverage laverage hale reacts to superior stress when insculated with	
	This study investigates how <i>Leucaena leucocephala</i> reacts to arsenic stress when inoculated with Arbuscular Mycorrhizal Fungi (AMF). This is a relevant and novel area of research, particularly in the	
	context of bioremediation and enhancing plant resilience to heavy metal stress. The focus on Leucaena	
	leucocephala is notable since woody legumes are understudied in comparison to herbaceous species in	
	this context. Highlighting this aspect strengthens the novelty. Your integration of physiological responses (oxidative stress indicators like MDA and H_2O_2) with AMF	
	inoculation is impactful, providing both biochemical and ecological insights. The practical application of	
	AMF for mitigating heavy metal toxicity aligns well with current global challenges in sustainable agriculture	
	and environmental management. Suggestions for Improvement:	
	1. The Introduction could more clearly highlight the gaps in previous research, specifically emphasizing	
	why woody legumes like Leucaena leucocephala are an important model for such studies. For	
	example, a comparison with existing studies on herbaceous plants could better underscore the novelty of your work.	
	2. Mentioning why the specific AMF species (Glomus macrocarpum and Glomus fasciculatum) were	
	selected would further strengthen the justification for your study.	
	3. Some sentences are overly long and complex, making them difficult to follow. For example, this sentence from the introduction:	
	"When electron loss (oxidation) outweighs electron gain (reduction), chemical (oxidative) damage to	
	cell molecules results."	
	This could be simplified for better readability: "Oxidative damage occurs when electron loss (oxidation) exceeds electron gain (reduction)."	
	4. Some ideas are repeated in the Introduction and Discussion sections. For instance:	
	Both sections emphasize how heavy metals disrupt photosynthesis multiple times. Instead, one section could focus on oxidative stress and the other on photosynthesis.	
	5. Some terms, such as "xenobiotics" and "phytomycoremediation," are introduced without sufficient	
	explanation. Consider briefly defining these terms for a broader audience.	
	6. Please write this statement clearly, for example 'The antioxidant response of <i>Leuceana leucocephala</i> to varying arsenic concentrations and inoculation with arbuscular mycorrhizal fungi (AMF) was	
	evaluated to assess its protective role against oxidative stress'	
	7. First time, use full form, but after that, use abbreviated form throughout the manuscript. For example	
	"Reactive oxygen species (ROS)".	
	8. Provide more recent references to strengthen the background, particularly regarding AMF	
	applications in arsenic stress and phytoremediation.9. Avoid overloading the introduction with basic concepts. For instance, the definition of oxidative stress	
	and antioxidants could be condensed or referenced to focus on arsenic and AMF. Please write like	
	"Environmental stresses, including arsenic toxicity, induce oxidative stress, damaging cellular components and impairing physiological functions "	
	10. Explain why specific arsenic concentrations (0, 25, 50, and 100 mg/kg) were chosen.	
	11. You mention how AMF inoculation improves antioxidant activity, but how do your findings	
	quantitatively compare to studies on other plant species or heavy metals? 12. How might AMF inoculation improve crop yields or reduce heavy metal contamination in polluted	
	soils?	
	13. Use shorter sentences and reduce technical jargon where possible.	
	 Avoid redundancy in the Introduction and Discussion. Address grammar issues: Focus on verb agreement, article use, and sentence clarity 	
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<u>PART 2:</u>

		Author's comment (if a highlight that part in the write his/her feedback h
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

Reviewer Details:

Name:	Jianqiang Zhang
Department, University & Country	Pu'er University, China

(if agreed with reviewer, correct the manuscript and the manuscript. It is mandatory that authors should k here)