

Review Form 3

Journal Name:	Journal of Scientific Research and Reports
Manuscript Number:	Ms_JSRR_122257
Title of the Manuscript:	Biologically Synthesized Zinc Nanoparticles and Its Effect on Wheat (<i>Triticum aestivum</i> L.)
Type of the Article	Original Research Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>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.</p>	<p>The study established that biosynthesis of ZnNPs is possible using the metabolite of <i>Pseudomonas</i> and actinobacteria. The work is a very good work as it indicate the potential application of biosynthesized ZnNPs as a better substitute to the synthetic chemical fertilizer whose production and application is expensive and detrimental to the ecosystem. The work stands a chance towards the amelioration of the menace of food insecurity.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title is not suitable I suggest it is recast as 'Biosynthesized Zinc Nanoparticles and their Plant Growth-Promoting Effect on Wheat (<i>Triticum aestivum</i> L.) Cultivation'</p>	
<p>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.</p>	<p>It is not necessary to put the study area in the abstract. I suggest you include that under materials and methods section. Change @ to 'at' Since you compare the performances of two products, I suggest you indicate the extent of performance in fold or percentage of improvement over the weak product. The abstract is not concluded. Try to put a conclusion.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Introduction Paragraph 1, line 5 & 8... write Zn in full, you don't start a sentence with acronym or symbol. Line 10 and 13 write ZnO and Zn in full.</p> <p>Materials and Methods Section 2.1 Explain vividly how you carried out the biosynthesis of zinc nanoparticles. Also, provide the detail of characterization procedures. Recast the second sentence as '<i>Pseudomonas</i> and actinobacterial isolates were collected from the Microbial Genetics Laboratory, Department of Agricultural Microbiology, UAS, Dharwad, India and screened for confirmation. Incomplete address: put India after Dharwad I.e Dharwad, India. Provide the coordinate and brief geographical information of the study area.</p> <p>Section 2.3 For clarity sake, indicate the plot size and the space in between What was the duration of planting? What is DAS?</p> <p>Section 2.5 Number your equation</p> <p>Results and Discussion Section 3.1, first paragraph, line 9: you have to be consistent zinc nanoparticles or nano ZnO Author should differentiate between ZnONPs and ZnNPs as the two words are used interchangeably. Justify the better performance of zinc nanoparticles (ZnNPs) biosynthesized by actinobacteria than ZnNPs produced from <i>Pseudomonas</i> sp in your discussion.</p>	
<p>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.</p>	<p>The study indicates that biosynthesis of ZnNPs is possible using the metabolite of <i>Pseudomonas</i> and actinobacteria. The work adopted the use of advanced characterization techniques to authenticate the production of zinc nanoparticles. The work also reveals the significant plant-growth promoting effect of biosynthetic zinc oxide nanoparticles for sustainable application as fertilizer.</p>	

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Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Satisfactory	
Minor REVISION comments		
Is the language/English quality of the article suitable for scholarly communications?	Yes	
Optional/General comments	The conclusion is too shallow. The author should recast to reflect the better performance of the zinc nanoparticles (ZnNPs) biosynthesized by actinobacteria over the conventional synthetic chemical fertilizer. Authors should use the standard table format for making their tables. Authors should provide the image of the biosynthesized ZnNPs The followings results should be provided: SEM image, UV-vis spectroscopy, FTIR spectroscopy, EDX and XRD spectra	

PART 2:

	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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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