

Review Form 3

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_124509
Title of the Manuscript:	Effect of Bio-Stimulants on Quality and Soil Health of Garlic (<i>Allium sativum</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 paper presented a scientific study on the importance of biostimulants on quality of garlic and the soil where the garlic was planted. The biostimulants used in the study were: humic acid, seaweed extract and vermiwash. Studies on effects of biostimulants are important because they provide an environment-friendly and more economical way of farming, that may help local farmers cut on the cost on the use of chemical fertilizers and thus help them obtain more vegetable produce and may increase their income. I like the study from this point of view of its significance and their help to local farmers to increase their crop productivity.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title of the study "Effect of Bio-Stimulants on Quality and Soil Health of Garlic (<i>Allium sativum</i> L.)" is I think misleading. The study focused on the effects of 3 types of biostimulants on the quality of the garlic produced after planting the garlic drenched with these biostimulants, by comparing the TSS, dry matter, crude protein content, and pungency of the garlic bulb. However, the effect on the soil health of garlic is the one misleading since they meant the effect of bio-stimulants on soil health after harvest of the garlic crop by analyzing their C, N, P, K content of the soil after harvest. Maybe a more appropriate title of the study, if I may suggest is: Post-harvest effect of biostimulants on quality of garlic and soil health so that it is clear that the study focused on studying the soil health after the harvest of the crop.</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>I think the abstract was not comprehensively written. It did not provide a backgrounder why the study is being done or in other words the significance of the study was not articulated. The treatments used could have been summarized rather than enumerating all of them. It simply enumerated the results on the chemical analyses but did not provide the implications of the results and what contributions it has on the field of science.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Generally, the subsections were appropriate by providing the Materials and Methods, results and discussion with 2 subsections</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 paper in its current form is not scientifically correct, because it has many lacking elements. On the Introduction: Author/s were able to introduce the importance of garlic and the need for more biostimulants to increase its yield or productivity. However, it did not introduce the importance of the biostimulants that they used in the study like that of humic acid, seaweed extract and vermiwash. There should be more explanation of using these types of bio-stimulants in the introduction. The paper also did not state or articulate well the objective of the study. On Materials and Methods:</p> <ul style="list-style-type: none"> • There were no basis or explanations on why those kinds of treatments were used. Was there a particular study that modelled the present experimental set up? What was the basis of using those different concentrations? These methods must be referenced. Otherwise, this is an original experimental RCB design but they have to explain why they used those types of treatments and concentrations. Also, it was not indicated what was used as control? Was it un inoculated control or just plain tap or ordinary water or distilled water? What type of humic acid was used? Was it reagent grade or ordinary humic acid? What type of seaweed and vermiwash was used? These should all be indicated in the M & M. A scientifically sound paper is one when the materials and methods can be replicated by a fellow researcher. • The methods did not describe the statistical analyses done, and the tables did not indicate the meaning of SEM+/- and CD (5%). Were they referring to Standard Error of the Mean and Coefficient of Deviation? This should be indicated. Authors used several acronyms in the paper but they did not indicate the meanings of the acronyms (FYM,DAS, IAA, GA, etc) 	

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	<ul style="list-style-type: none"> • Methods of chemical analyses were also not indicated or were the samples simply submitted to a particular laboratory to analyze the TSS, dry matter, protein and pungency, C, N, P, K. The methods used for chemical analyses should be indicated in the paper and must be referenced. • Also, if the author/s were after the postharvest effect, a statistical analysis should have been done if there were improvements on the C, N, P, K. The comparison done in the study were just simply the 10 treatments (compared with that of the control). Was there an attempt to compare the pre and post harvest effect of garlic on the soil health? • It was also not indicated in the study how many confirmatory experiments were done? Or did the data come from just one field experiment? The paper indicated that each treatment had 3 replicates then the data should reflect that those values reflected in the Tables are the mean/average of 3 treatments All of these were not indicated in the paper. 	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>:-</p>	<p>I think good and more updated references can be found on the subject of effect of bio-stimulants/biofertilizer on garlic particular on humic acid.</p> <p>Author/s are recommended to check Research Gate (and other search engines) and request for a full text article of this paper, since this study was also conducted in India and a very recent paper (2024):</p> <p style="padding-left: 40px;">Effect of Trichoderma and Humic Acid on Vegetative Growth and Economics of Garlic (Allium sativum L.) CV. G-282</p> <ul style="list-style-type: none"> • April 2024 • Journal of Advances in Biology & Biotechnology 27(5):336-343 • DOI: • 10.9734/jabb/2024/v27i5792 	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Not very well, author/s are advised to have the paper check for technically sound English for scientific writing. There were some errors in grammar. They can also use Grammarly software for grammatically correct English or turn on the editing of word to help improve the English of the paper. Professional help can also be sought.</p>	
<p><u>Optional/General</u> comments</p>	<p>The paper needs serious major revisions as pointed out in my comments especially if there are no confirmatory experiments done.</p> <p>If it was a one- time field experiment and no comparison of data can be done with previous field experiment, then the study can be entitled Preliminary study on the Post-Harvest effect of garlic....” There should be justifications why just a single field experiment was done.</p>	

PART 2:

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

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