

Review Form 3

| | |
|--------------------------|--|
| Journal Name: | Journal of Advances in Biology & Biotechnology |
| Manuscript Number: | Ms_JABB_128388 |
| Title of the Manuscript: | “Effect of phytoremediated sewage water irrigation, organic manures & biofertilizers on growth and yield of okra variety Kashi chaman” |
| Type of the Article | Original Research Article |

PART 1: Comments

| | Reviewer's comment | Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
|---|---|---|
| Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part. | This manuscript contributes significantly to the scientific community by addressing a critical aspect of sustainable agricultural practices. The study explores the use of phytoremediated sewage water, organic manures, and biofertilizers to enhance the growth and yield of okra—a vital crop for both nutrition and local economies. With increasing challenges related to water scarcity and environmental degradation, the findings of this research could offer practical solutions for resource-limited farmers, especially in water-scarce regions. Additionally, the investigation of sewage water treatment and organic farming approaches highlights their potential role in sustainable agriculture, which is a major area of interest within environmental science and agronomy. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The current title is descriptive but somewhat long. Suggestion for Alternative Title: "Impact of Phytoremediated Sewage Water and Organic Inputs on the Growth and Yield of Okra (Var. Kashi Chaman)" | |
| 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. | The abstract is largely comprehensive, summarizing the key points of the study, including the objective, experimental design, and major findings. However, the abstract could benefit from more specific information about statistical significance (e.g., p-values) and a clear conclusion regarding the broader implications of the findings. Suggestions for Improvement: <ul style="list-style-type: none"> • Include statistical significance of the results (e.g., p-values or confidence intervals). • End the abstract with a strong conclusion stating the potential real-world application of the findings, especially for resource-limited farmers. | |
| Is the manuscript scientifically, correct? Please write here. | The manuscript appears to be scientifically accurate based on the experimental design, methods, and results described. However, further clarification is needed in certain areas, such as the phytoremediation process of the sewage water and the mechanisms through which the biofertilizers work in conjunction with the sewage water. These clarifications will ensure a deeper scientific understanding of the results. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | The references seem sufficient, but they may benefit from being more recent. Suggested Additional References: <ul style="list-style-type: none"> • Recent studies on phytoremediation techniques and their application in agriculture (particularly regarding sewage water). • Studies on the role of biofertilizers in enhancing nutrient uptake and plant health. | |

Review Form 3

| | | |
|---|---|--|
| <p>Is the language/English quality of the article suitable for scholarly communications?</p> | <p>The language quality is generally suitable for scholarly communication. There are minor grammatical issues (e.g., incomplete words like "maxim" in the abstract), which should be addressed. A final round of proofreading for grammatical and typographical errors would improve the overall quality.</p> | |
| <p>Optional/General comments</p> | <p>ABSTRACT Although the abstract provides a clear and concise study objective and the main findings are identified and summarized (T15 being the most effective treatment), it would be important and beneficial to state the statistical significance of the findings. Was the improvement in growth and yield by T15 statistically significant from the other treatments?</p> <p>INTRODUCTION</p> <ol style="list-style-type: none"> 1) A brief literature review on similar studies (on using treated sewage water, organic manures, and biofertilizers in other crops or okra) could help contextualize your research. Mentioning studies that have tested similar treatments, and their outcomes would establish a clearer background for your hypothesis. 2) Is there a lack of research on using phytoremediated sewage water in okra cultivation? Or is it the combined effect of biofertilizers and sewage water irrigation that hasn't been explored? State the research gap the study is trying to fill <p>METHODOLOGY</p> <ol style="list-style-type: none"> 1) Provide more detail on how the sewage water was treated before irrigation. Was it subjected to any specific filtration or cleaning process? If yes, how was this process monitored or validated? If not, what steps were taken to ensure the water was safe for irrigation? 2) While the treatments are listed, the rationale behind choosing specific dosages for Azotobacter, PSB, and Vermicompost could be better explained. Why were these specific quantities selected? Did previous studies provide evidence for these amounts, or were they based on field trials? 3) The methodology mentions 3 replicates per treatment, which is good. Were there any control treatments used, such as untreated sewage water or standard chemical fertilizers? Adding a control group would strengthen the validity of the results. 4) Did you conduct ANOVA (analysis of variance) to compare the treatments? Were the results statistically significant (with p-values or confidence intervals)? Clarifying the analysis will allow readers to assess the robustness of the results. <p>RESULTS</p> <ol style="list-style-type: none"> 1) The results would be stronger with more specific statistical analysis. Were the differences between treatments significant? Reporting p-values or using letters (e.g., a, b, c) to denote statistically significant differences between treatments would be very useful. 2) It would also be beneficial to include graphs summarizing the results, such as a bar graph showing the fruit yield for each treatment. This would make it easier for readers to visualize the differences between treatments and understand the magnitude of the effects. <p>DISCUSSIONS</p> <ol style="list-style-type: none"> 1) The discussion could explain why T15 was the most effective treatment. How do the combined effects of Azotobacter, PSB, and treated sewage water contribute to plant growth and nutrient uptake? Consider discussing the mechanisms through which these treatments act. 2) It would strengthen the paper to compare your findings to other studies on okra or similar crops. 3) What are the limitations of this study? How might environmental factors (such as temperature and rainfall) have affected the results? Also, consider discussing the feasibility of applying these treatments on a larger scale—are they cost-effective or scalable for farmers? <p>CONCLUSION</p> <ol style="list-style-type: none"> 1) The conclusion succinctly summarizes the results, emphasizing the effectiveness of T15, but could this method be adopted by farmers in other regions or with different crops? It would be helpful to briefly discuss how the findings can be applied to the question above 2) Consider adding suggestions for future research if there are any. | |

Review Form 3

| | | |
|--|--|--|
| | REFERENCES 1) Standardize the format across all citations to match the style required by the journal 2) Italicize the Journal name Ensure that all references contain full details such as author names, publication year, article/book titles, volume/issue numbers (for journals), page numbers, and publisher information (for books) | |
|--|--|--|

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:

| | |
|----------------------------------|--------------------------------------|
| Name: | Esiosa Adewale |
| Department, University & Country | University of Louisville, USA |