

Review of: "Assessment of Quality, Bacterial Population and Diversity of Irrigation Water in Selected Areas of Minna, Niger State, Nigeria"

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Potential competing interests: No potential competing interests to declare.

In general, I suggest reorganizing the paper to adhere to the manuscript preparation guidelines, adding line numbers in a Word format before the review process. The study titled “**Assessment of Quality, Bacterial Population and Diversity of Irrigation Water in Selected Areas of Minna, Niger State, Nigeria**” contains contents suitable for publication. Nevertheless, considerable editing is required to ensure the thoroughness of key comment areas, as outlined below:

Title:

- The title is adequate, yet it could be enhanced for clarity and conciseness as **Evaluation of the Physico-chemical and Bacterial Quality of Irrigation Water in Selected Areas of Minna, Niger State, Nigeria,**’ effectively highlighting the study’s emphasis on water quality assessment in the specified regions.

Abstract:

- Improving the abstract section could involve ensuring that the background, objectives, results, and conclusions were clearly delineated. It is recommended to follow the publisher’s guidelines for abstract structure to ensure adherence to standard practices.

Introduction:

- Include a concluding remark in the introduction that clarifies the specific problem or gap that prompted the study.
- Please omit the explanation of “contaminants of fecal origin from swage systemand heavy metals” in paragraph 5, as the study primarily centers on irrigation water quality rather than drinking water and public health concerns.
- Avoid duplicating information by discussing “aims and objectives” as separate sections in the introduction if they are clearly outlined in the abstract and summarized in the conclusion of the introduction.

Materials & Methods:

- Omit detailed descriptions of media preparation, such as “preparation of agar,” within the materials and methods section; focusing on sample analysis is sufficient for outlining the experimental design.
- Ensure consistency in the naming of bacterial species by following the bacteriological system of nomenclature consistently throughout the text and tables (e.g., *B. megaterium*; not B.megaterium)

Results:

- Separating the Results section from the Discussion section is suggested for clarity. Nevertheless, it is important to follow the publisher's guidelines regarding the structure of the sections.

Discussion:

- What was the typical bacteriological count of irrigation water in this study? This section should include discussion of the specific bacterial load relevant to the study, aligning it with established standards.

General:

Outdated references, such as those from 1979, were utilized. It is recommended to thoroughly review the entire document and address the critical issues suggested and highlighted.