

Reviewers report

General Comments

- The manuscript needs a thorough proofreading to correct minor grammatical errors and awkward phrasing.
- The manuscript would benefit from a stronger logical flow between sections.
- The readability can be improved by avoiding overly technical jargon where possible.
- Ethical considerations related to environmental impact should be briefly addressed.

1. Abstract

- The abstract is informative but could be more concise. It contains excessive background information that should be reserved for the introduction.
- The methodology section in the abstract should be summarized more succinctly.
- Key findings should be more clearly stated with specific statistical values where applicable.
- The conclusion should explicitly mention the novelty and significance of the study.

2. Introduction

- The introduction provides relevant background but lacks a clear statement of the knowledge gap being addressed.
- Some statistics and references seem outdated; updating them with recent studies is recommended.
- The objectives should be more sharply defined to align with the hypothesis.
- There is some redundancy in discussing the effects of salinity and heavy metals on plant growth.
- Consider restructuring the paragraph on PGPR and thiamine to improve clarity and logical flow.

3. Methodology

- The experimental design is well explained but lacks sufficient detail on replication and controls rather explain as C= Control, T1=...., T2=...., T3=..... And same the whole treatments.
- The method of inoculum preparation should specify the exact concentration and method of application.

- The pot experiment lacks details on environmental conditions (e.g., temperature, humidity, light conditions).
- Data analysis methods should be expanded to include a justification for statistical tests used.
- Some equations are not formatted correctly and should follow standard scientific notation.
- The bioaccumulation and translocation factor formulas should include references for validation.
- Figures and tables referenced in the methodology should be explicitly mentioned.

4. Results

- Results are presented in a logical order but should include more comparative statistical analyses.
- Figures should include error bars where applicable, and statistical significance should be marked.
- The section on antioxidant enzyme activity lacks sufficient explanation of the impact of treatments.
- Some tables are too lengthy and should be reformatted to improve readability.
- The PCA analysis is presented but lacks an in-depth explanation of how the components were selected.
- Results should be connected more clearly to the stated objectives.

5. Discussion

- The discussion provides an adequate interpretation but tends to restate results without deeper analysis.
- Comparisons with similar studies should be expanded to strengthen the study's relevance.
- Mechanistic insights into how PGPR and thiamine mitigate stress should be more thoroughly explored.
- The impact of environmental variability on the study's findings should be discussed.
- The discussion should explicitly address limitations, such as potential confounding factors.
- There is some redundancy in describing how stressors affect plant physiology; this should be streamlined.

6. Conclusion

- The conclusion is well-structured but should emphasize the study's novelty more explicitly.
- Practical applications of the findings should be highlighted.
- A brief mention of future research directions would enhance the section.
- The final sentence should be more impactful, summarizing the study's broader implications succinctly.
- Significant recommendations are missing

7. References

- Some citations are missing page numbers or volume/issue details.
- Reference formatting should be checked for consistency.
- Several studies cited are older than five years; incorporating more recent research would strengthen the discussion.