



ISSN NO. 2320-5407

ISSN(O): 2320-5407 | ISSN(P): 3107-4928

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-56219

Title: Evaluation of salt stress tolerance in wheat varieties cultivated in the polders of lake chad at the germination stage

Recommendation:

- Accept as it is
- Accept after minor revision.....**
- Accept after major revision
- Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality			x	
Techn. Quality		x		
Clarity			x	
Significance		x		

Reviewer Name: Dr. Hari Prashad Joshi

Detailed Reviewer's Report

This study provides a timely and well-executed evaluation of salt stress tolerance in wheat varieties relevant to the Lake Chad region, where soil salinization increasingly threatens agricultural productivity. The experimental design is appropriate, with a clear salinity gradient and robust parameters including germination percentage, germination speed index, root and shoot length, and salt tolerance index. The statistical analysis effectively demonstrates significant genotypic variation, with Mexipack and Soms 90 identified as promising tolerant varieties while Marzak shows marked sensitivity.

The findings have direct practical implications for breeding programs and local agricultural resilience. However, several revisions are recommended to enhance manuscript quality. The methodology would benefit from brief justification for selecting the specific NaCl concentrations (75-300 mM) in relation to local soil salinity conditions. The results section should include standard error or confidence interval information in figures to better visualize variability. The discussion appropriately connects findings to existing literature but could be strengthened by briefly addressing physiological mechanisms (e.g., osmotic adjustment, antioxidant activity) that may explain the observed varietal differences. Table 2 formatting requires adjustment for clarity, and figure legends should be placed adjacent to corresponding figures rather than compiled at the end. Some references contain minor formatting inconsistencies (e.g., Adoum et al. 2017 lists excessive authors) that require correction.

The conclusion effectively summarizes findings but could more explicitly state recommendations for local agricultural extension services. With these revisions addressing methodological transparency, data presentation, and formatting consistency, this paper will make a valuable contribution to salinity stress research in West African agroecosystems.