

REVIEWER'S REPORT

Manuscript No.: IJAR-55498

Date: 30.12.2025

Title: Effects of sprouted soybean incorporation in diets on growth performance and carcass yield of Ross 308 broiler chickens

Recommendation:

Accept as it is

Accept after minor revision

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer Name: **ANAPANA GOPAL**

Reviewer's Comment for Publication.

General Comments

The manuscript evaluates the effects of sprouted (germinated) soybean incorporation in broiler diets on growth performance, feed efficiency, carcass yield, and sensory characteristics in Ross 308 chickens. The topic is relevant to poultry nutrition, sustainable feed formulation, and livestock production in resource-constrained regions. The study addresses an important practical issue, particularly the need for low-cost, locally adaptable protein sources in broiler production systems. Overall, the experiment is well designed and the manuscript presents comprehensive data; however, several issues related to clarity, consistency, statistical rigor, and presentation need to be addressed before the manuscript can be considered for publication.

Content and Originality

The study offers moderate originality by focusing on soybean germination as a simple bioprocessing technique under tropical conditions and comparing it with roasted soybean grain and conventional soybean meal. While germinated and fermented soybeans have been previously studied, direct comparative evaluations under West African production conditions remain limited, which adds value to this work. The inclusion of growth performance, carcass traits, and sensory analysis strengthens the scope of the study. However, the novelty should be better emphasized in the Introduction by clearly distinguishing this work from previous studies and explicitly stating how it advances current knowledge beyond existing literature.

Technical Quality

The experimental design (300 chicks, three treatments, four replicates) is generally appropriate and adequately powered. Diets were formulated to be isonitrogenous and isoenergetic, which strengthens the validity of performance comparisons. Growth

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performance indicators (FI, DWG, FCR) and carcass measurements are standard and relevant.

However, some technical concerns should be addressed:

- The germination protocol lacks sufficient detail (duration, temperature, moisture conditions), limiting reproducibility.
- Sensory evaluation results are presented descriptively, but no statistical analysis was performed, despite the use of a trained panel and a hedonic scale. This weakens the interpretation of sensory findings.
- The justification for evaluating "rate weight" (spleen) should be clarified, and the biological relevance of reduced spleen weight should be interpreted more cautiously.
- The economic analysis is mentioned in the statistical section but no results are presented, creating inconsistency.

Overall, the technical framework is sound, but methodological transparency and consistency require improvement.

Language and Presentation

The manuscript is generally understandable but contains numerous grammatical errors, typographical mistakes, spacing issues, and inconsistent terminology (e.g., "Soja grain," "Soybean grain," "SG," "TS"). Some sentences are overly long and would benefit from restructuring for clarity. Units, symbols, and statistical notations are sometimes inconsistently formatted.

Figures and tables are relevant, but some captions lack sufficient detail, and figure quality (especially axes labeling and legends) needs improvement. The manuscript requires thorough English language editing by a proficient scientific editor to meet scholarly communication standards.

Structure and Organization

The manuscript follows a conventional scientific structure and is logically organized. The Introduction provides adequate background but is somewhat lengthy and repetitive in places. The Materials and Methods section is detailed but should be streamlined and clarified, especially regarding diet preparation and sensory evaluation.

The Results section is comprehensive but occasionally mixes interpretation with data presentation. Some tables (e.g., carcass traits) are overly dense and could be simplified for better readability. The Discussion is well developed and appropriately relates findings to existing literature, although some interpretations—particularly regarding immune status inferred from spleen weight—should be more cautiously stated.

References and Citations

The reference list is generally adequate, relevant, and includes both classical and recent literature. Citations are appropriate and support the discussion well. However:

- Some references are relatively old (e.g., NRC, 1994) and could be complemented with more recent nutritional recommendations where applicable.
- Formatting inconsistencies are present in the reference list (journal abbreviations, punctuation, spacing).
- In-text citations should be checked for consistency with the reference list.

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Overall, references are sufficient but require minor updating and formatting corrections.

Overall Recommendation

The manuscript addresses a relevant and practical research question and presents promising results supporting the use of sprouted soybean in broiler nutrition. However, several issues related to methodological clarity, statistical treatment of sensory data, language quality, and presentation must be addressed before publication.

Final Decision

Minor Revision

The manuscript has scientific merit but requires substantial revision to improve clarity, methodological transparency, statistical rigor, and language quality. The authors should carefully address the points raised above before the manuscript can be reconsidered for publication.