

Review Form 3

Journal Name:	Asian Journal of Soil Science and Plant Nutrition
Manuscript Number:	Ms_AJSSPN_122340
Title of the Manuscript:	Performance of Gobhi Sarson (Brassica napus L.) under Integrated Nutrient Management
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION 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>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript is valuable for the scientific community as it provides essential insights into sustainable agricultural practices, particularly in the context of Integrated Nutrient Management (INM). By demonstrating the effectiveness of various nutrient management strategies, the study offers practical implications for improving crop yield and resource use efficiency. I appreciate this manuscript for its rigorous experimental design and comprehensive analysis, which enhance the reliability of the findings. The results contribute significantly to the understanding of how integrated approaches can optimize agricultural productivity while ensuring environmental sustainability. This research is particularly relevant for researchers, practitioners, and policymakers seeking to advance sustainable agricultural systems and improve food security.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The title "Performance of Gobhi Sarson under Integrated Nutrient Management" is suitable as it accurately reflects the focus of the study on evaluating the effects of Integrated Nutrient Management (INM) on Gobhi Sarson. However, it is important to include both the scientific and common names in the title for clarity and precision. Using "Brassica napus L." alongside "Gobhi Sarson" enhances the title by:</p> <ol style="list-style-type: none"> 1. Scientific Accuracy: Including the scientific name ensures that the specific species is identified, which is crucial for readers in academic and research contexts. 2. Broader Accessibility: While "Gobhi Sarson" may be familiar to local audiences, the scientific name "Brassica napus L." allows the research to reach a wider audience, including international researchers and practitioners who may not be familiar with the common name. 3. Consistency in Terminology: Using both names maintains consistency throughout the manuscript, reinforcing the importance of scientific nomenclature in agricultural research. <p>Suggested Title Revision: "Performance of Gobhi Sarson (Brassica napus L.) under Integrated Nutrient Management" This revised title captures both the common and scientific names, enhancing the clarity and professionalism of the research.</p>	

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<p>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.</p>	<p>The abstract is comprehensive and covers the key aspects of the study, including the experimental design, treatments, and main findings. The following points will add value to the abstract:</p> <ol style="list-style-type: none"> i. It is advisable to use "Integrated Nutrient Management" instead of "integrated nutrient management" to maintain consistency with academic standards and improve the clarity of the text. ii. The abstract does not mention the limitations in comparing the control treatment with the INM treatments. Adding a sentence or two addressing this concern would improve the abstract. iii. Further, the conclusion statement at the end of the abstract leaves the reader without clear takeaways or implications of the findings. A few suggestions to strengthen the conclusion: <ul style="list-style-type: none"> • Provide Context: Briefly explain why the combination of RDF and FYM is important for improving growth, yield and yield attributes of Gobhi Sarson (<i>Brassica napus</i> L.). For example, mention how this integrated approach can help reduce reliance on chemical fertilizers, improve soil health, and enhance sustainability. • Highlight Key Findings: Summarize the most significant findings, such as the treatment that performed best overall (e.g. 100% RDF + 20 t FYM ha⁻¹) and the magnitude of improvements seen in key parameters like yield. • Suggest Implications: Discuss the potential implications of these findings for farmers and policymakers. For instance, how adopting INM practices can lead to increased productivity, reduced costs, and environmental benefits. • Recommend Next Steps: Propose future research directions or practical applications that can further build upon these results. For example, evaluating the long-term impacts of INM on soil fertility or conducting on-farm trials to assess feasibility. • Discuss Environmental Impacts: Mention the potential environmental benefits of using organic amendments like FYM in conjunction with chemical fertilizers, including reduced nutrient leaching and improved soil structure. • Include Policy Recommendations: Suggest actionable policy implications based on the findings, such as promoting INM practices through subsidies, training programs for farmers, or further research into optimizing nutrient management strategies. iv. Keywords Section Improvements: Need for Scientific Precision in Keywords The importance of scientific precision in keywords cannot be overstated, especially in academic and research contexts. Keywords serve as critical identifiers for research articles, helping to categorize and enhance the discoverability of the work. <ul style="list-style-type: none"> • It is therefore advisable to include both the scientific name and the common name (<i>Brassica napus</i> L., Gobhi Sarson) to maximize searchability and relevance. This provides clarity and precision, which is particularly important in academic and research contexts. It ensures that the article is easily identifiable and searchable in scientific databases. v. Recommendation for Keywords Revision: The current keywords ("Ghobi Sarson, recommended dose of fertilizers, farm yard manure, growth parameters, and yield attributes") require attention as they lack scientific precision and comprehensiveness. <ul style="list-style-type: none"> • It is advisable to adopt a more precise set of keywords, such as "<i>Brassica napus</i> L., Gobhi Sarson, Integrated Nutrient Management, Yield Attributes, Sustainable Agriculture" to broadens the relevance of the research by incorporating contemporary themes. This improves discoverability in academic databases. Additionally, it aligns more closely with the study's objectives, making it a more effective choice for conveying the essence of the research. • Use keywords" as a single term not Key words 	
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<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The subsections and structure of the manuscript are appropriate, with clear delineation of Materials and Methods, Results, and Discussion sections. The use of tables to present the data is also effective. However, the Materials and Methods Section can be further strengthened by providing clearer, more comprehensive information that enhances the overall quality of the manuscript including:</p> <ul style="list-style-type: none"> • Clarity and Structure: The "Materials and Methods" section should utilize subheadings to improve organization, making it easier for readers to navigate through the contents • Detailed Treatment Descriptions: Provide explanations for each treatment to clarify the rationale behind the specific percentages of RDF and amounts of FYM used. • Soil and Environmental Conditions: Include information about soil characteristics (e.g., type, pH, organic matter) to give context to the experimental results. • Data Collection Methods: Specify how measurements for growth parameters and yield attributes were taken, including any equipment used and the timing of measurements. • Missing section on Statistical methods used: The absence of a section on statistical analysis and the software used in the manuscript is a notable omission. While the article includes critical statistical measures such as Critical Difference (C.D.) at 5%, Standard Error (SE), and Coefficient of Variation (C.V.), it lacks details on the specific statistical methods and software employed for the analysis. Including this information is important for transparency and reproducibility, allowing readers to understand how the data was analyzed and to assess the validity of the results. It is recommended that the authors add a brief section detailing the statistical analysis methods used, along with the software utilized, to enhance the manuscript's completeness and rigor. • Formatting and Language: Ensure consistent terminology throughout the section and check for grammatical errors or typos to maintain professionalism. 	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript appears to be scientifically robust and technically sound for the following reasons:</p> <ol style="list-style-type: none"> 1. The study employed a well-designed randomized complete block experiment with 10 treatments replicated thrice, which is an appropriate experimental design for evaluating the effects of integrated nutrient management on Gobhi Sarson (<i>Brassica napus</i> L.). This design ensures the reliability and reproducibility of the findings. 2. The treatments included varying combinations of recommended dose of fertilizers (RDF) and farmyard manure (FYM), which is a relevant approach to assess the impact of integrating organic and inorganic nutrient sources on crop performance. The inclusion of a control treatment and different levels of RDF and FYM allows for a comprehensive evaluation of the treatments. 3. The data collected on growth parameters, yield attributes, and chlorophyll content are appropriate and commonly used indicators to assess the effects of nutrient management practices on crop performance. The use of a SPAD meter to estimate chlorophyll content is a reliable and non-destructive method. 4. The statistical analysis of the data using appropriate methods, such as calculating critical difference (CD) and standard error (SE), strengthens the validity of the conclusions drawn from the study. The coefficient of variation (CV) values are within acceptable limits, further confirming the reliability of the results. 5. The manuscript presents the results in a clear and organized manner, using tables to effectively communicate the treatment effects on plant population, plant height, number of branches, chlorophyll content, and yield attributes. 6. The discussion of the results in the context of previous studies demonstrates the 	

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	<p>authors' understanding of the existing knowledge and their ability to situate their findings within the broader scientific context. The citations of relevant literature support the interpretations and conclusions drawn from the study.</p> <p>In summary, the robust experimental design, appropriate data collection methods, sound statistical analysis, and clear presentation of results contribute to the scientific correctness and technical soundness of this manuscript. The authors have followed standard research practices and effectively communicated the significance of their findings. However, there are areas for improvement as noted in the subsequent comments. Overall, the article contributes valuable insights to the field of sustainable agriculture and nutrient management.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>=</p>	<ol style="list-style-type: none">1. The references provided in the search results cover a good range from 2002 to 2023, which is recent and relevant for this study. However, to further strengthen the reference section, it would be beneficial to include additional references from the past 5-10 years (2013-2022) to provide a more comprehensive background and context for the research.2. Suggest expanding the literature to include studies from Africa and the SSA region to enhance the manuscript's applicability, and impact on sustainable agricultural practices globally.	

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<p><u>Minor REVISION</u> comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are suitable for scholarly communications, with clear and concise writing.</p>	
<p><u>Optional/General</u> comments</p>	<p>1. Strengthen the Introduction</p> <ul style="list-style-type: none"> • Clarity and Flow: While the introduction is rich in information, it could benefit from improved clarity and flow. Some sentences are lengthy and may overwhelm the reader. Breaking down complex ideas into shorter, more digestible sentences could enhance readability. • Need for Global References: The introduction would be strengthened by including references from global studies, particularly from Africa and the SSA region. This would provide a broader context for the research, demonstrating how INM practices have been adopted and their effectiveness in different agricultural settings. <p>Recommendations for Improvement</p> <ul style="list-style-type: none"> • Enhance Clarity: Simplify complex sentences and ensure that each paragraph focuses on a specific theme or idea. This will improve the overall readability of the introduction. • Include Global Perspectives: Incorporate references and findings from studies conducted in Africa and other regions to highlight the global relevance of INM practices. This will provide a more comprehensive understanding of the subject and its applicability in diverse agricultural contexts. • Strengthen the Transition to Research Objectives: Conclude the introduction with a clear statement of the research objectives or hypotheses. This will guide the reader on what to expect in the subsequent sections of the manuscript. • Highlight Practical Implications: Emphasize the practical implications of the research findings for farmers and policymakers, particularly in terms of improving crop productivity and sustainability through INM. <p>2. Treatment descriptions: The treatment descriptions are clear but could benefit from more structure for better readability. The use of abbreviations (RDF, FYM) should be defined at first mention for clarity, especially for readers who may not be familiar with these terms.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> i. Define Abbreviations: Ensure that RDF (Recommended Dose of Fertilizer) and FYM (Farmyard Manure) are defined when first introduced. ii. Use Bullet Points or a Table: Present the treatments in a bulleted list or table format for clarity. This makes it easier for readers to follow. iii. Provide Context: Briefly explain why these specific treatments were chosen and their expected impact on plant growth and yield. <p>3. Strengthen discussion point</p> <p>Address the concern regarding the comparison of the control treatment with the INM treatments, the authors should:</p> <ol style="list-style-type: none"> i. Acknowledge the limitation in the discussion section, stating that the control received 100% RDF while the INM treatments had reduced chemical fertilizer levels. ii. Focus on discussing the overall trends and patterns observed rather than emphasizing statistical significance. iii. The manuscript presents important findings on the effects of integrated nutrient management (INM) on the growth and yield of Gobhi Sarson (<i>Brassica napus</i> L.). However, the inclusion of 	

	<p>a detailed cost-benefit analysis (CBA) is essential for evaluating the economic viability of the INM technologies proposed in the study. A thorough CBA will provide valuable insights for farmers, policymakers, and stakeholders in the agricultural sector regarding the financial implications of adopting these practices.</p> <p>4. Comments on the Conclusion</p> <ul style="list-style-type: none"> i. Lack of Depth: The conclusion is somewhat superficial given the magnitude of the research and the results presented. It simply states that one treatment was more effective without delving into the implications of these findings or the underlying reasons for the observed results. ii. Absence of Context: The conclusion does not provide context regarding the significance of using integrated nutrient management (INM) practices compared to traditional methods, particularly in terms of cost reduction, environmental sustainability, and long-term soil health. iii. Policy Implications Missing: There is no mention of how these findings could influence agricultural practices or policy recommendations, which is crucial for translating research into actionable insights for farmers and policymakers. <p>Recommendations for Improving the Conclusion</p> <ul style="list-style-type: none"> i. Expand the Conclusion: Elaborate on the significance of the findings. Discuss how the combination of RDF and FYM not only enhances growth and yield but also contributes to improved soil health and sustainability. ii. Highlight Cost-Effectiveness: Highlight Cost-Effectiveness: Include a statement on how the INM treatment (100% RDF + 20 t FYM ha⁻¹) can reduce reliance on chemical fertilizers, thus lowering costs for resource-poor farmers, which is essential for practical applications of the research. Incorporating a cost-benefit analysis of INM technologies into the recommendations adds significant value by providing a comprehensive understanding of the economic implications of adopting these practices, helping persuade farmers and policymakers to consider INM as a viable alternative to traditional fertilizer practices, ultimately contributing to more sustainable agricultural systems. iii. Discuss Environmental Impacts: Mention the potential environmental benefits of using organic amendments like FYM in conjunction with chemical fertilizers, including reduced nutrient leaching and improved soil structure. iv. Include Policy Recommendations: Suggest actionable policy implications based on the findings, such as promoting INM practices through subsidies, training programs for farmers, or further research into optimizing nutrient management strategies. <p>The recommendation to expand the conclusion to include cost-effectiveness, environmental sustainability, and policy implications adds depth to the manuscript/article. This helps in articulating the broader impact of the findings beyond just the experimental results.</p> <p>5. Address recommendation on references noted above</p> <p>By addressing these points, the authors can strengthen the scientific validity of their conclusions while still highlighting the potential benefits of INM practices for improving the growth and yield of Gobhi</p>	
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	Sarson (Brassica napus L.).	
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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Jean Nzuma
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