Review Form 3

Journal Name:	**Journal of Experimental Agriculture International**
Manuscript Number:	**Ms_JEAI_130277**
Title of the Manuscript:	**Calcium sources and their mode of application effect on micronutrient content in leaf and fruit of two apple varieties grown under high density planting system**
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	**This manuscript is of significant importance to the scientific community as it investigates the impact of calcium sources, dosages, and application methods on micronutrient content in apple leaves and fruits. The findings provide actionable insights into optimizing calcium application to maintain critical levels of iron, zinc, and boron, which are essential for apple quality and post-harvest life. By addressing the antagonistic effects of calcium on micronutrient availability, the study offers practical recommendations for sustainable apple cultivation, particularly in high-density planting systems. These results are invaluable for enhancing horticultural practices and ensuring better fruit quality and shelf life in regions with similar agro-climatic conditions.**	
Is the title of the article suitable? (If not please suggest an alternative title)	**"Impact of Calcium Sources and Application Methods on Micronutrient Content in Leaves and Fruits of High-Density Apple Varieties" This revised title is more concise while maintaining the original meaning and highlighting the key aspects of the research.**	

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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.	**The abstract provides a general overview of the study's focus, methodology, and findings, but it could benefit from improved clarity and comprehensiveness. Here are some suggestions for refinement:** **Suggestions for Improvement:** **1. Structure:** **○ The abstract could be better organized into key sections: background, objectives, methods, results, and conclusion.** **○ The current structure merges these sections, making it harder to identify the main points.** **2. Clarity:** **○ Simplify complex sentences for better readability.** **○ Highlight key findings, such as the most effective calcium source and its impact on micronutrient content, more explicitly.** **3. Details:** **○ The dosage and mode of application should be briefly summarized without excessive detail.** **○ Include a clearer statement of the practical implications or applications of the findings (e.g., recommendations for growers).** **4. Repetition:** **○ Avoid repetitive phrases, such as restating the effects of calcium chloride and calcium nitrate.** **Suggested Additions:** **• A clear mention of the experimental setup (e.g., number of treatments, varieties tested) to provide context.** **• Explicit mention of the broader implications of the findings for apple quality, shelf life, and agricultural practices.** **• A more robust conclusion summarizing the main takeaway for the reader.** **Suggested Deletions:** **• Remove overly technical details about methodology (e.g., specific stages of calcium application and exact measurements) that are better suited for the main text.**	
Is the manuscript scientifically, correct? Please write here.	The manuscript is scientifically correct but could benefit from minor refinements in its presentation, data interpretation, and contextualization of findings. A thorough review by a subject-matter expert in plant nutrition or horticulture would further validate the scientific accuracy.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	**Suggested Additional References:** To strengthen the manuscript, consider including more recent studies or reviews that: • Explore advancements in calcium application techniques in horticulture. • Investigate the interplay between calcium and other micronutrients in high-density apple systems or similar crops. • Address region-specific challenges in apple cultivation, particularly in temperate climates like Kashmir. Possible additions: • Studies on nanotechnology-based fertilizers and their role in improving nutrient uptake. • Recent meta-analyses on foliar versus soil application methods for macronutrients and micronutrients in fruit trees.	
Is the language/English quality of the article suitable for scholarly communications?	yes	
<u>Optional/General</u> comments	**Abstract** **1. Clarity and Conciseness: Simplify the language and eliminate redundancy to make the abstract more concise and focused on the key findings.** **2. Key Findings Emphasis: Highlight specific quantitative results (e.g., percentage improvement or specific nutrient levels) to make the abstract more impactful.** **3. Relevance: Clearly state the practical significance of the findings for apple growers in Kashmir or globally.** **Introduction** **1. Structure: Start with a broader context of calcium's role in horticulture before narrowing down to the focus on apples in Kashmir.** **2. Research Gap: Clearly define the research gap that this study aims to fill. Mention why it's important to explore the effects of calcium sources and application methods.** **3. Objectives: Include a specific and clearly stated objective or hypothesis at the end of the introduction.** **Materials & Methods** **1. Details of Treatments: Provide more clarity on the rationale for choosing specific dosages of calcium sources and their application methods.** **2. Experimental Design: Explain why an RBD design was chosen and how randomization was implemented to reduce bias.** **3. Figures and Tables: Ensure all figures (e.g., Figure 1) have clear labels, legends, and units. For instance, Figure 1 could include a title or explanation to enhance understanding.**	

	4. **Soil Properties: Provide additional context or references to explain how the initial soil properties impact calcium and micronutrient uptake.** --- **Results and Discussion** 1. **Interpretation of Data: Offer deeper insights into why certain calcium sources (e.g., calcium nitrate) performed better than others. Relate findings to physiological processes or previous studies.** 2. **Comparative Analysis: Discuss the performance of the two apple varieties (Red Chief Camspur and Golden Delicious) in greater detail to understand varietal differences.** 3. **Practical Implications: Link findings more explicitly to practical recommendations for growers, including how these findings could influence fertilization practices.** 4. **Figures and Tables: Include visualizations, such as graphs or charts, summarizing key findings (e.g., the decline in micronutrient levels with increased calcium dosage).** 5. **Discussion Depth: Expand on the antagonistic effects of calcium on micronutrient availability and how these effects might vary with environmental conditions or soil types.** **Conclusion** 1. **Actionable Recommendations: Provide more actionable recommendations for farmers, emphasizing practical steps to balance calcium application and micronutrient supplementation.** 2. **Future Research: Suggest future research directions, such as exploring additional calcium sources, long-term impacts on soil health, or other apple varieties.** 3. **Impact Statement: End with a strong statement on the broader significance of the findings for apple production in high-density planting systems.** **References** 1. **Consistency: Ensure all references follow a consistent citation style (e.g., APA or MLA).** 2. **Recent Studies: Incorporate more recent references to support claims, especially studies published within the last five years.** 3. **Cross-referencing: Verify that all in-text citations correspond to entries in the reference list.**	

PART 2:

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

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