Review Form 3

Journal Name:	**Journal of Experimental Agriculture International**
Manuscript Number:	**Ms_JEAI_124735**
Title of the Manuscript:	**Magnetized Irrigation And Its Potential In Sustainable Agriculture- A Review**
Type of the Article	**Review Article**

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PART 1: Review Comments

Compulsory REVISION 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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript holds significant importance for the scientific community as it explores an innovative, eco-friendly approach to tackling one of the most pressing challenges in agriculture—water scarcity and declining water quality. By reviewing the use of magnetized water in irrigation, the paper highlights the potential of this technology to enhance plant growth, improve nutrient uptake, and increase agricultural productivity sustainably. I find this manuscript interesting because it introduces a promising solution that could reduce the reliance on chemical treatments and conserve vital resources like water. However, it would benefit from more rigorous field trials and clarity on the mechanisms behind magnetic treatment, which remain a subject of debate in the scientific community.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	Yes	
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 of your article is well-structured, but I have a few suggestions to make it more comprehensive and impactful: Suggested Additions: • Broader Impact: You touch on sustainability, but you could briefly mention how magnetized irrigation aligns with global goals for sustainable agriculture, climate resilience, or water conservation. • Highlight the applicability of this technology in different agricultural sectors and regions, such as drought-prone areas or saline soil environments. Emphasize its potential to address future challenges, which enhances the abstract's relevance. Suggested Deletions: • The mention of specific plant pigments (chlorophyll a, b, carotenoids) could be summarized to streamline the abstract. It's detailed for an abstract and could be saved for the main text. • The detailed mention of water properties (e.g., hydrogen bonds, structural regularity) may be too specific for the abstract, which should focus on the broader implications.	
Are subsections and structure of the manuscript appropriate?	Effect of Magnetic Fields on Plant Growth and Development: This section is comprehensive but dense. Consider breaking it into subsections based on plant processes or developmental stages, such as: • Germination and early growth • Vegetative growth and yield • Physiological responses to stress (salinity, heavy metals, etc.) • Biochemical responses (chlorophyll content, antioxidants, etc.) This would make it easier for readers to follow and for the discussion to be more focused on each process.	
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.	This manuscript appears to be scientifically robust and technically sound for several reasons. First, it draws on a comprehensive review of existing studies, citing multiple sources that investigate the effects of magnetized water on plant growth, soil properties, and water use efficiency. Second, the manuscript effectively explains the mechanisms behind how magnetized water influences physiological processes, such as altering water properties and improving nutrient uptake, making the scientific reasoning well-grounded. Lastly, the discussion of potential challenges and future research needs adds a critical perspective, showing that the authors acknowledge the current gaps and limitations in the field.	

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Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. **-**	Yes, References are sufficient.	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	Yes	
Optional/General comments	Magnetized irrigation holds significant promise for enhancing crop productivity in a sustainable and environmentally safe manner. This review outlines the beneficial effects of magnetized water on seed germination, plant growth, and stress tolerance, offering a potential solution to water scarcity and soil salinity challenges in agriculture. While the technology presents considerable advantages, further research is needed to optimize its practical application and clarify the underlying mechanisms involved in its effects on plants and soil. **Use of figures or graphical representations will be more appealing for readers.**	

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)*	

Reviewer Details:

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