Review Form 1.7

Journal Name:	**International Journal of Environment and Climate Change**
Manuscript Number:	**Ms_IJECC_103695**
Title of the Manuscript:	**Effect of Phosphorus and Hydrogel on Growth and Yield of Maize (Zea mays L.)**
Type of the Article	**Original Research Article**

General guideline for 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.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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Review Form 1.7

PART 1: Review Comments

	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)*
Compulsory REVISION comments **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) 2. **Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	**1. Yes the manuscript is important for scientific community.** **2. Yes the title of article is suitable.** **3. Yes, the abstract of the article is comprehensive.** **4. The subsections and the structure of the manuscript are appropriate.** **5. In general, the article is scientifically sound. However, there are some weak points:** **- there is no evidence of the experiments (sketches and dimensions of the experimental field, photos of the plots and the harvest in different stages of development, see for exaple, [3,4,5] from additional bibliography);** **- the location of the experimental field is not presented on a map of India (see, for example Figure 2 added by reviewer in final of the manuscript);** **- the information obtained from the research is few and expected (the treatment with maximum doses is the most efficient), there is no information on possible negative effects of high doses of treatment, which could indicate an upper limit of phosphorus and hydrogel doses;** **- the use of graphic representations increases the quality of the article and increases the speed of understanding and reading (see, for example, the Figure 1 added by reviewer in the final of the manuscript, [1,2,3] from additional bibliography).** **6. The references are sufficient and relatively recent.However, there are many other articles from which you can observe how experimental evidence and results can be presented graphically.** **additional bibliography** 1. Haiqing Gong, Yue Xiang, Bilisuma Kabeto Wako and Xiaoqiang Jiao , Complementary effects of phosphorus supply and planting density on maize growth and phosphorus use efficiency, Frontiers, vol. 13, 2022 2. Zhang, J.; Wen, J.; Zhang, T.; Zhang, Y.; Peng, Z.; Tang, C.; Wang, Y.; Su, S.; Zhang, N.; Zeng, X. Effects of Five–Year Inorganic and Organic Fertilization on Soil Phosphorus Availability and Phosphorus Resupply for Plant P Uptake during Maize Growth. *Agriculture* 2023, *13*, 858. https://doi.org/10.3390/agriculture13040858 3. Sánchez-Rodríguez AR, Rey MD, Nechate-Drif H, Castillejo MÁ, Jorrín-Novo JV, Torrent J, Del Campillo MC, Sacristán D. Combining P and Zn fertilization to enhance yield and grain quality in maize grown on Mediterranean soils. Sci Rep. 2021 Apr 1;11(1):7427. doi: 10.1038/s41598-021-86766-2. PMID: 33795774; PMCID: PMC8016957. 4. Blandino M., Battisti M., Vanara F., Reyneri A., The synergistic effect of nitrogen and phosphorus starter fertilization sub-surface banded at sowing on the early vigor, grain yield and quality of maize, European Journal of Agronomy, vol. 137, 2022. 5. El Bergui, O.; Abouabdillah, A.; Bourioug, M.; Schmitz, D.; Biel, M.; Aboudrare, A.; Krauss, M.; Jomaa, A.; Romuli, S.; Mueller, J.; et al. Innovative Solutions for Drought: Evaluating Hydrogel Application on Onion Cultivation (*Allium cepa*) in Morocco. *Water* 2023, *15*, 1972. https://doi.org/10.3390/w15111972	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	A grammar and expression check is necessary using first the text editor, then specialized software products (Grammarly, QuillBot Al) in the free version or higher. The scientific language must be improved, the expressions must be sufficiently explicit.	

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Optional/General comments	Note 7 and the **minor revision** I decided for the *poor quality of the presentation* (lack of experimental evidence, maps of the experimental field, graphical representations in the presentation of the results and insufficiently elevated scientific language). The article will be published as soon as these deficiencies are corrected.	

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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Department, University & Country	**The National Institute of Research, Romania**