

## Review Form 1.7

Journal Name:	<b>Advances in Research</b>
Manuscript Number:	<b>Ms_AIR_117500</b>
Title of the Manuscript:	<b>EXPLOITATION OF GRAFTING FOR ABIOTIC AND BIOTIC STRESS MANAGEMENT IN VEGETABLE CROPS: A REVIEW</b>
Type of the 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:

(<https://www.journalair.com/index.php/AIR/editorial-policy> )

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**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)
<p><b>Compulsory REVISION comments</b></p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<p><b>General Comments</b></p> <p>From my point of view, it is a very interesting topic and simultaneously it seems that to the best of my knowledge is an important study aims to present that plant cultivation is continually challenged by various abiotic and biotic stresses that can hinder growth and yield. Abiotic stresses, such as salinity, water stress, and temperature fluctuations, and biotic stresses, including diseases, pests, and nematodes, pose significant threats to agriculture. Grafting, a horticultural technique, offers a promising solution to overcome these challenges. In cases of salinity stress, grafting with salt-tolerant rootstocks can limit the transport of harmful ions to the shoot and help store them in the roots, mitigating ion toxicity. Water stress, including drought and water logging, can be addressed by grafting with drought-tolerant rootstocks, which can reduce yield losses and enhance photosynthesis under adverse water conditions. Grafting can also improve nutrient uptake, translocation of water, and osmoregulation, thereby assisting plants in surviving under water stress. High and low-temperature stresses, which can disrupt plant metabolism, membrane stability, and growth, can also be addressed through grafting. Grafted plants with temperature-tolerant rootstocks may indirectly enhance tolerance to extreme temperatures. Additionally, grafted plants can adapt to varying temperature conditions by promoting root growth, nutrient absorption, and the production of specific compounds that protect against temperature-related damage. Heavy metal stress, which can contaminate crops and impact human health, can be alleviated by using rootstocks that control the uptake and transport of heavy metals, reducing their toxicity to plants. Furthermore, grafting can effectively combat biotic stresses. By selecting disease-resistant rootstocks, plants can be protected against soil-borne diseases, pests, and nematodes, thereby increasing yields and sustainability in agriculture.</p> <p><b>The paper consists of the sections:</b> <i>Introduction, Methods of Grafting, Conclusion.</i></p> <p><b>However, I find some recommendations:</b></p> <ol style="list-style-type: none"> <li>1. The abstract must contains the main purpose of the paper, the research method used in the research and the main contributions.</li> <li>2. It would be very useful to add in the "Introduction" section the purpose, objectives and hypothesis of the research.</li> <li>3. The Literature review section cannot be missing from the paper and must be presented separately from the Introduction section.</li> <li>4. We consider that the introduction should specify the novelty of the paper compared to other papers published in this area.</li> <li>5. The research is well based on science and the results are in agreement with the theoretical part. From my point of view, the paper is original and the topic addressed brings added value to the specialized literature regarding development. The paper is well written and easy to read.</li> <li>6. The research is well based on science and the results are in agreement with the theoretical part. The model applied to the analyzed data is correctly used in the analysis undertaken, it is a strength point of this paper.</li> <li>7. Also, we consider that the literature is not enough and we recommend the authors to refer to other recent works indexed in Web of Science, Scopus.</li> </ol> <p>We recommend the authors to number the paragraphs: 1. Introduction; 2. Literature Review; 3. Methods and Results, Discussions and Conclusions.</p> <p>In conclusion, the article should be thoroughly rebuilt (changes in structure recommended above). It should also be enhanced with a review of the literature adequate to the subject and a broader interpretation and commentary of the research results</p>	

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<b>Minor</b> REVISION comments		
1. Is language/English quality of the article suitable for scholarly communications?	Yes	
<b>Optional/General</b> comments		

**PART 2:**

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

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