

**Review Form 3**

Journal Name:	<a href="#">International Journal of Plant &amp; Soil Science</a>
Manuscript Number:	Ms_IJPSS_124074
Title of the Manuscript:	<b>Mechanism Underlying Anthracnose Disease Control by Biological Inoculants in Capsicum annum Grown in Simplified Hydroponics- A Review</b>
Type of the Article	<b>Review Article</b>

**Review Form 3**

**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.	The manuscript addresses a pressing agricultural challenge—anthracnose control in <i>Capsicum annuum</i> , especially within hydroponic systems. This is a critical topic as it touches on sustainable agricultural practices and disease management in a context of increasing demand for eco-friendly pest control. Given the rising importance of hydroponic systems in modern agriculture and the push toward biological control, this review fills a niche gap by synthesizing knowledge on biological inoculants. However, the manuscript can be strengthened by more robust exploration of the future potential and specific constraints regarding the implementation of these practices in commercial-scale systems.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, “Mechanism Underlying Anthracnose Disease Control by Biological Inoculants in <i>Capsicum annuum</i> Grown in Simplified Hydroponics—A Review,” is adequate but could be more concise. Consider: “Biological Control of Anthracnose in <i>Capsicum annuum</i> Using Inoculants in Hydroponics: A Mechanistic Review.” This revision emphasizes the focus on biological control mechanisms while keeping the context of hydroponics clear.	
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.		
Are subsections and structure of the manuscript appropriate?	The overall structure of the manuscript is coherent, with well-defined sections addressing mechanisms of biocontrol, microbial-plant interactions, hydroponic systems, and practical applications. However, there are redundancies between sections, and some transitions between key concepts feel abrupt. For example, the section on microbial-plant interactions could be better integrated with the part on biological control mechanisms. The review would benefit from better transitions that connect the specific mechanisms (e.g., competition, antibiosis) to the practical implications for hydroponic systems.	
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.	The manuscript demonstrates scientific robustness in reviewing literature concerning biological control agents such as <i>Trichoderma</i> spp. and <i>Bacillus</i> spp. However, the depth of discussion on molecular mechanisms could be enhanced. For instance, when discussing induced systemic resistance (ISR), additional detail on the role of signaling molecules like salicylic acid and jasmonic acid would strengthen the argument. Additionally, references to recent, cutting-edge studies would further support the manuscript's claims of scientific soundness.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =	The references are mostly relevant but could be updated with more recent publications (e.g., within the last five years). The review should also expand on the geographical relevance of these studies. For example, are the strains of <i>Trichoderma</i> used in South Asian or African agricultural systems the same as those in Europe or North America? This could impact the scalability of the proposed solutions.	

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<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>		
<p><b>Optional/General</b> comments</p>	<p><b>Specific Recommendations for Revision:</b></p> <ol style="list-style-type: none"> <li>1. <b>Abstract:</b> <ul style="list-style-type: none"> <li>○ Revise for clarity and conciseness. Avoid vague phrases and replace them with clearer, scientifically rigorous language.</li> </ul> </li> <li>2. <b>Introduction:</b> <ul style="list-style-type: none"> <li>○ Expand on the broader relevance of anthracnose management and hydroponics for food security, especially in developing countries. Provide better justification for why hydroponics is a significant focus area for anthracnose control.</li> </ul> </li> <li>3. <b>Discussion:</b> <ul style="list-style-type: none"> <li>○ Offer more critical analysis of the limitations of using biological inoculants in commercial hydroponic systems (e.g., cost-effectiveness, long-term sustainability).</li> <li>○ Discuss any potential downsides or trade-offs (e.g., inconsistent efficacy, variability across different environments).</li> </ul> </li> <li>4. <b>Literature Integration:</b> <ul style="list-style-type: none"> <li>○ Ensure a more seamless integration of the different sections on mechanisms, interactions, and applications. The manuscript sometimes feels like isolated blocks of information. It would benefit from more fluid transitions.</li> </ul> </li> <li>5. <b>Future Perspectives:</b> <ul style="list-style-type: none"> <li>○ Strengthen the "Future Directions" section by proposing more detailed research plans. What are the critical unknowns that need addressing before widespread adoption of these biocontrol methods?</li> </ul> </li> <li>6. <b>Figures and Tables:</b> <ul style="list-style-type: none"> <li>○ Consider adding more figures to illustrate key concepts, such as the ISR pathways or competitive exclusion mechanisms between beneficial microbes and pathogens.</li> </ul> </li> </ol>	

**PART 2:**

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

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