

**Review Form 1.7**

Journal Name:	<b>Journal of Advances in Biology &amp; Biotechnology</b>
Manuscript Number:	<b>Ms_JABB_118946</b>
Title of the Manuscript:	<b>Mechanisms and Applications of Microbial Biotechnology in Soil Health and Agricultural Productivity: A review</b>
Type of the Article	<b>Review Article</b>

## 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)
<p><b>Compulsory</b> REVISION comments</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>	<ol style="list-style-type: none"> <li>1. Yes, the manuscript is important for the scientific community as it provides a comprehensive review of the mechanisms and applications of microbial biotechnology in soil health and agricultural productivity. It highlights the potential of microbial biotechnology to enhance sustainable agricultural practices, which is crucial for food security and environmental conservation.</li> <li>2. The title is suitable as it accurately reflects the content of the manuscript. However, a minor suggestion for improvement could be: "Microbial Biotechnology in Soil Health and Agricultural Productivity: Mechanisms and Applications."</li> <li>3. The abstract is comprehensive and provides a good summary of the manuscript. It outlines the key areas covered, including the role of microbial biotechnology in nutrient cycling, organic matter decomposition, soil structure maintenance, disease suppression, and the application of biofertilizers, biopesticides, and bioremediation techniques. The challenges and future prospects are also mentioned.</li> <li>4. The subsections and structure of the manuscript are appropriate. The manuscript is well-organized with clear sections on soil health, microbial biotechnology, mechanisms of microbial action, interactions with plants, and applications in agriculture. Each section is logically arranged and contributes to the overall narrative.</li> <li>5. The manuscript appears to be scientifically correct. It provides detailed explanations of various microbial processes and their applications in agriculture, supported by relevant references.</li> <li>6. The references are sufficient and cover a wide range of relevant studies. However, it would be beneficial to include more recent studies from the past five years to ensure the review is up-to-date with the latest advancements in microbial biotechnology.</li> </ol> <p><b><u>Additional Suggestions/Comments:</u></b></p> <ul style="list-style-type: none"> <li>• Consider adding a section on the economic impact and cost-effectiveness of microbial biotechnology applications in agriculture.</li> <li>• Including case studies or examples of successful implementation of microbial biotechnology in different agricultural contexts could enhance the practical relevance of the review.</li> </ul>	
<p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>	<p>The language quality of the article is generally suitable for scholarly communications. However, a thorough proofreading is recommended to correct minor grammatical errors and improve overall readability.</p>	
<p><b>Optional/General</b> comments</p>	<p>The manuscript provides a valuable review of microbial biotechnology in soil health and agricultural productivity. To further enhance its impact, consider including more recent references, discussing the economic benefits, and providing case studies of successful implementations. These additions would offer practical insights and ensure the review is up-to-date with the latest advancements in the field.</p>	

**Review Form 1.7**

	The manuscript is highly relevant and well-structured, providing a comprehensive review of microbial biotechnology in soil health and agriculture. It is scientifically sound, with appropriate title and abstract. To improve, include more recent references, add sections on economic impact and case studies, and proofread for minor errors. These enhancements would further strengthen the manuscript's contribution.	
--	--	--

**PART 2:**

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

**Reviewer Details:**

Name:	<b>Saleh Ahmed Jalal Siam</b>
Department, University & Country	<b>American International University, Bangladesh</b>