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| Journal Name: | [**Journal of Advances in Biology & Biotechnology**](https://journaljabb.com/index.php/JABB) |
| Manuscript Number: | **Ms\_JABB\_141976** |
| Title of the Manuscript:  | **Antagonistic Potential of Endophytic Bacteria Against Colletotrichum truncatum (Syn. C. capsici) Inciting Fruit Rot In Chilli** |
| Type of the Article |  |

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (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. A minimum of 3-4 sentences may be required for this part.** | * + **The research topic is significant and contemporary, particularly in the context of sustainable agriculture and alternative biocontrol strategies to synthetic pesticides.**
	+ **The study employs standard and reliable methods for pathogen isolation and identification, enhancing the credibility of the findings.**
	+ **Comprehensive experimental methods are employed, including morphological, molecular, and bioassay-based techniques, ensuring robust data.**
	+ **The diversity of plant sources for bacterial isolation strengthens the scope of the study.**
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| **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 is well-organized and provides a clear overview of the study's objectives and findings.**
* ***Suggestion*: It would be beneficial to include a quantitative representation of the effectiveness of the isolates. For example, mention that 20 isolates out of 80 exhibited antagonistic activity, giving a clearer perspective on the proportion of effective isolates.**
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| Is the manuscript scientifically, correct? Please write here. | yes |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references cited in this manuscript are generally relevant and sufficiently support the research objectives. A majority of the sources are recent, with several from 2023 and 2024, reflecting up-to-date literature. The references are largely focused on plant pathology, microbial biocontrol, and endophytic bacteria, which aligns well with the study’s scope.However, there is noticeable reliance on regional or low-impact journals, particularly from open-access Indian sources, which may limit the scientific depth. Some references are incomplete or missing publication details, and there is a lack of high-impact review articles that could strengthen the theoretical framework. The inclusion of more peer-reviewed, international sources and systematic reviews would enhance the manuscript's credibility and scholarly rigor.Overall, the reference list is functional and topical, but it would benefit from refinement in terms of quality, completeness, and diversity. |  |
| Is the language/English quality of the article suitable for scholarly communications? | **The writing is scientifically acceptable but needs linguistic refinement for better clarity, particularly with:*** **Sentence structures that could be simplified.**
* **Some terms and phrases used repeatedly.**
* **Unnecessary repetitions in headings and phrasing.**
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| Optional/General comments | * **Introduction: The introduction is written in a scientific tone and provides a coherent background on the research topic.**

**❗ Suggestion: Some sentences are long and complex, which may hinder readability. It would be more accessible if simplified.*** **Materials and Methods: The methodology is thoroughly detailed, covering all aspects from sample collection to molecular analyses.**

**❗ Minor Critique: The absence of negative and positive controls for the bacteria in the bioassay tests (such as the paper disc assay) should be addressed, as controls are essential to interpret the results properly.****❗ It would also be helpful to clarify the selection criteria for the 20 isolates that were advanced for further experiments.*** **Results and Discussion: The data presentation is well-supported by figures, tables, and detailed explanations.**

**❗ Improvement Needed: The statistical analysis is not clearly explained. Although SED and CD are mentioned, it is not clear whether these values were derived from ANOVA or another statistical test. This should be clarified.****❗ Some sections of the discussion could benefit from more explicit connections to previous studies. While citations are provided, they could be more effectively integrated into the interpretation of the results.*** **Figures and Tables: There is some repetition of titles and figures (e.g., Fig. 2 is repeated), which affects the manuscript's organization.**

**❗ The figure captions are not consistently formatted, and there are repetitive mistakes (e.g., "c. Conidia of Colletotrichum capsici" appears multiple times).****The microscopic images and cultural observations of fungal growth and bacterial isolates are useful, but it would be helpful to add scale bars to the images for better interpretation.*** **Molecular Identification (Molecular Characterization): The molecular results are promising but the low sequence similarity (e.g., EB01 showing 87.66%) raises questions about the accuracy of species-level**

**identification using 16S rRNA alone, it should be noted that 16S rRNA sequencing may only reliably identify bacterial species at the genus level. Further clarification is needed regarding the species-level identification.*** **Conclusions: The conclusion is logical and reflects the findings well.**

**❗ It would be beneficial to suggest future research directions, such as conducting in planta trials or evaluating the soil persistence of these bacterial isolates.** |  |

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| **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:**

**Tariq Ahmad, Damascus University, Pharmacy college, Syria**