

Introduction

Second race

The information provided refers to data from more than 20 years ago and is not updated on what is currently happening.

The entire bibliographic review is outdated to the last 10 years, there is not a single citation that corresponds to these last 10 years.

Trichoderma Isolation, Identification, and Storage

Do not refer to the fact that they are going to sequence and do not talk about DNA extraction protocol

Evaluation of *Trichoderma isolates* against pathogens *in vitro*

It only speaks of radial monitoring time for the control of *Trichoderma* but does not refer to the times (hours, days).

Isolation of different phytopathogenic fungi

They do not refer to how they were identified, sequencing, microscopy, etc

Root rot of sesame (*Macrophomina phaseolina*)

There is no mention of where this phytopathogen comes from or any of what is mentioned in the text

Review summary

Although this work may have potential, it is very poorly written and not very updated in terms of research in the area. All the molecular identification of all the strains involved needs to be developed. The primers that were used for molecular identification should be mentioned and the sequences should be deposited in the NCBI. To determine the antagonistic effects, it is not enough only with plate assays but also other mechanisms such as competition, production of antibiotic metabolites, parasitism, in others. The document does not have sufficient and updated bibliographic references.

There is a lack of trials in plants that demonstrate the true biocontrol potential

Reference

(A. P et al., 2020; Alfiky & Weisskopf, 2021, 2021; An et al., 2022; Barrera et al., 2021; Cai & Druzhinina, 2021; Guigón-López et al., 2010; Kubicek, 2011)

A. P, S., Thankappan, S., G, K., & Uthandi, S. (2020). Comprehensive profiling of the VOCs of *Trichoderma longibrachiatum* EF5 while interacting with *Sclerotium rolfsii* and *Macrophomina phaseolina*. *Microbiol Res*, 236, 126436.

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Alfiky, A., & Weisskopf, L. (2021). *Deciphering Trichoderma–Plant–Pathogen Interactions for Better Development of Biocontrol Applications*. 7(1), 61.

An, X.-Y., Cheng, G.-H., Gao, H.-X., Li, X.-F., Yang, Y., Li, D., & Li, Y. (2022).

Phylogenetic Analysis of Trichoderma Species Associated with Green Mold Disease on Mushrooms and Two New Pathogens on Ganoderma sichuanense. 8(7), 704.

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Cai, & Druzhinina, I. S. (2021). In honor of John Bissett: Authoritative guidelines on molecular identification of *Trichoderma*. *Fungal Diversity*.

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- Guigón-López, C., Guerrero-Prieto, V., Vargas-Albores, F., Carvajal-Millán, E., Ávila-Quezada, G. D., Bravo-Luna, L., Ruocco, M., Lanzuise, S., Woo, S., & Lorito, M. (2010). *Identificación Molecular de Cepas Nativas de Trichoderma spp. Su Tasa de Crecimiento in vitro y Antagonismo contra Hongos Fitopatógenos* %J *Revista mexicana de fitopatología*. 28, 87-96.
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