

Review Form 3

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_124030
Title of the Manuscript:	Morphological and Genetic Diversity of Colletotrichum gloeosporioides Causing Yam (Dioscorea alata L.) Anthracnose Disease in Côte d'Ivoire
Type of the Article	Original Research Article

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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)
<p>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.</p>	<p>Given the economic and food security significance of yam in West Africa, the research is valuable for both local and global plant pathology efforts. Understanding the morphological and molecular diversity of <i>Colletotrichum gloeosporioides</i> will be instrumental in early detection of this pathogen and improve disease control strategies for yam anthracnose. I find this manuscript significant as it fills a gap in the regional understanding of anthracnose disease.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Morphological and Molecular Diversity of <i>Colletotrichum gloeosporioides</i> Causing Yam (<i>Dioscorea alata</i> L.) Anthracnose Disease in Côte d'Ivoire</p>	
<p>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.</p>	<p>The abstract need slight improvement, therefore, I'm recommending below adjusted abstract:</p> <p>Yam is a plant of great importance for the Ivorian people in terms of food, nutrition, economy, and socio-cultural value. However, its production is threatened by several biotic factors, including anthracnose, one of the most destructive diseases affecting yams. The objective of this study was to assess the morphological and molecular diversity of <i>Colletotrichum gloeosporioides</i> isolates responsible for anthracnose in yam (<i>Dioscorea alata</i>) in Côte d'Ivoire. Twenty-seven previously isolated strains were collected from Plant Health Laboratory of Nangui Abrogoua University and analyzed. The study examined the cultural (coloration, growth mode, texture, and colony diameter), microscopic (conidial shape, size, and spore concentration), and molecular characteristics of these isolates. Significant morphological diversity was observed among the isolates. Macroscopically, three major groups were identified based on colony coloration (whitish, orange, and grayish). Colony textures varied, presenting cottony, flaky, downy, or filamentous appearances, with growth patterns ranging from concentric and radiating to regular rings. Colony diameters ranged from 37 mm to 82 mm. Microscopically, sporulation varied significantly among isolates, ranging from 1.1×10^4 to 85.4×10^4 spores, as did conidial size, which ranged from 10.54 to 19.29 μm in length and 3.93 to 6.43 μm in diameter. Molecular analysis through comparison with GenBank nucleotide sequences revealed homology rates of 99-100% and varying proximities between the rDNA sequences of the isolates. In conclusion, the characterization of these isolates provides valuable insights for improving disease control strategies for yam anthracnose.</p> <p>Keywords: Anthracnose, <i>Colletotrichum gloeosporioides</i>, Morphological diversity, Molecular diversity, <i>Dioscorea alata</i></p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, however, to enhance the clarity and flow, I'm suggesting the below methodology headings:</p> <p>2.0 Materials and Methods</p> <p>2.1 Collection of <i>Colletotrichum</i> Isolates</p> <p>2.2 Materials and Reagents</p> <p>2.3 Morphological Characterization</p>	

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	2.3.1 Cultural Characteristics 2.3.2 Microscopic Characteristics 2.3.2.1 Conidial Shape 2.3.2.2 Conidial Size 2.3.2.3 Conidial Concentration 2.4 Molecular Characterization 2.4.1 DNA Extraction 2.4.2 PCR Amplification and Sequencing 2.5 Data Analysis	
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 is scientifically robust as it follows established methodologies for assessing both morphological and molecular diversity in the plant pathogens. The morphological analysis provides a comprehensive understanding of the pathogen phenotypic variation, and the use of molecular techniques ensures accurate characterization of the pathogen. These aspects suggest that the manuscript is methodologically accurate and will contribute meaningfully to the field of plant pathology.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =	Yes	
Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	Yes	
Optional/General comments	I am generally satisfied with the manuscript and believe it has strong potential for publication. However, I recommend that the author carefully address the suggested adjustments to improve clarity and rigor.	

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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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