



SDI Review Form 1.6

Journal Name:	Asian Journal of Biochemistry, Genetics and Molecular Biology
Manuscript Number:	Ms_AJGMB_51810
Title of the Manuscript:	Identification of Fusarium spp. associated with potato tubers in Upper Egypt by morphological and molecular characters
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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>Compulsory REVISION comments</p>	<p>Introduction: usually introduction describes the problem and existing studies in this field, then formulates the purpose of the study itself. In this manuscript, I do not see any phrases about the purpose of the study. Please, add them.</p> <p>Materials and methods (Screening for amylase production): why did you included into this section only 15 isolates out of several hundreds studied?? Which criteria did you use to choose these 15 isolates for this assay?</p> <p>Results: Table 1 shows that the total number of isolates was 504.</p> <ol style="list-style-type: none"> What in this case is NCI and why its values are significantly lower than TC? According to further tables, the corresponding analyses (amylase production, sequencing) were made only for 15 isolates. Why in this case you say about 504 isolates in the abstract, if you treated only a small part of their total number? What are 960 segments?? How did you calculate RIV values?? No description for this parameter was found in the Materials and Methods section. <p>Table 3: the isolate 5 is designated as <i>F. glycines</i> (as well as in Fig. 1 and Table 2), but you did not mention this fact in the "Results" text. The same is for <i>F. nirenbergiae</i>. If you refer them to the <i>F. oxysporum</i> complex, then I would recommend to list all such species in the Results section and mention them as referred to this complex.</p> <p>Fig. 3: This is the first time I see that pathogenicity data were used for a tree construction. Why did you do this? What is the aim of such analysis? Please, explain and give a reference (if possible). In contrast to nucleotide sequences or, say, production of certain enzymes, this trait (pathogenicity) is rather complex and is determined by a number of reasons, so it is not correct to construct a tree based on it. Moreover, the same pathogen strain can change its pathogenicity level with time.</p> <p>Discussion: 1) please, check and correct the text, because some sentences seem to be incomplete. For example: However, as reported by O'Donnell and Cigelnik (1997).</p> <p>Some other sentences are too long and/or very unclear and should be re-phrased. For example: The isolates of the same species were grouped together in the resulting tree, supporting their right distinguishing proof. and our examination in agreement with past study (Stefańczyk et al. 2016) who isolated 10 <i>Fusarium</i> species related with dry rot in potatoes and identify them (ITS, <i>tef-1α</i> and <i>β-tubulin</i>) were analysed to determine the relationships among the species and to give data regarding the intraspecific variation.</p> <p>2) The paragraph about the pathogenicity of <i>F. oxysporum</i>: it is difficult to undertand the subject of discussion. You mention a lot of papers, according to which there can be both virulent and nonvirulent variants of this species, And so what?? What is a conclusion? In discussion you should discuss your results, compare them with results of other researchers, which support or contradict your data, and try to explain the result of such comparison and possible prospects of your study.</p>	
<p>Minor REVISION comments</p>	<p>Introduction: you mention that molecular methods are required to distinguish <i>Fusarium</i> species with similar morphological characteristics, but do not say why it is necessary to distinguish them (differences in a potential harm, pathogenicity, toxin production, etc.). It would be good to tell something about the reason why such identification is important in a</p>	



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	<p>practical sense.</p> <p>Materials and methods (Isolation and morphological identification of Fusarium spp.): please, add description – how did you obtain single spores for pure cultures, since it is absent in this section.</p> <p>Materials and methods (PCR amplification and sequencing): please, indicate the model of the used amplifier, as well as the UV transilluminator (and a wavelength applied).</p> <p>Results: Table 3 – please, indicate in the table the accession number for which collection is indicated (column 1). Additionally, I would recommend to replace the “Measurement (mm)” title with “Lesion size (mm)”.</p> <p>Photo 1: it seems that figure capture is incompleting.</p> <p>Photo 2: please, indicate the strains used for the left and right variants of inoculation, since a significant difference is obvious between them.</p> <p>Fig. 1: it would be good to mark Fusarium isolated obtained in this study (for example, in bold) to differentiate them from other species and strains, which sequences of the tubulin gene (already deposited in the databank) were used for a phylogenetic analysis</p>	
<p><u>Optional/General</u> comments</p>	<p>General language editing would be very desirable. Though the text is understandable, some phrases are rather unclear; there are also stylistic errors. I would recommend to ask any person with native English to look through the text and correct it.</p> <p>General appearance: please check the font type and sizes across the text, since they vary in some places. Additionally, check all figures for the same font type and size in figure captions (in Fig. 1 the capture is inserted into the figure margins).</p> <p>General comment for tables and results: usually if you present results in the form of $XX \pm YY$, it is recommended to use numbers with an equal number of symbols after the decimal point. For example, 2.1 ± 0.4 and 6.7 ± 1.3, or 12.43 ± 1.08 and 14.03 ± 3.76, but NOT 15.4 ± 1.32. In addition, the chosen record form should be equal for all values in the column. If you write 15.1 in one row, then in next row you should write 14.0, not 14... an so on.</p> <p>Photographs: please, check the proportions of photos, since they seem to be distorted. In addition, a better photo quality is required.</p>	

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

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