



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_26467
Title of the Manuscript:	Arbuscular mycorrhizal fungi improve root ramification and vegetative growth of young plum tree under continuous deficit irrigation
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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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)
<u>Compulsory</u> REVISION comments	This is a very interesting paper of high relevance for practical effects of the arbuscular mycorrhizal fungi and should be published in SDI after some revision. The measures made are appropriate and the statistical analysis is robust. There are minor errors, probably because the authors are not clear when they were writing "material & methods" and "discussion" sections.	
<u>Minor</u> REVISION comments	Introduction section #1 The authors must consider taxonomic problems when they describe <i>F. mosseae</i> and <i>R. intraradices</i>. I suggest to revise it! Please, describe AMF species as recommended by the CODE. See more information into the Index Fungorum web-site; #2 I suggest to present <i>Rhizophagus</i> as <i>Rhizoglosum</i> as proposed by Sieverding et al. Mycotaxon 2014; #3 With regard to the use of commercial AMF inoculum it is important to note that the sustainability of this option depends on the relative availability and perhaps costs of the materials. It might be worth mentioning the local context - i.e. are commercial inoculum readily available and currently used so that they could be re-directed to promote fruit trees growth?;	Thank you for reviewing the MS The MS was improved taking into account the reviewer's comments with clarification of some aspects. AMF taxonomy was rectified according to Index Fungorum. Thank for this correction. The viability of purchased inoculum was checked before the implementation of the trial. pH was estimated in water. It was indicated in the revised MS. Experimental design was more detailed.



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	#4 Arid and semi-arid areas have particular characteristics which makes them difficult to manage for agricultural production- compared other areas around the world. The authors should give a little more background in the introduction so that the international readership is aware of this context; #5 What is the main hypothesis of this study? Please, provide this information in the introduction section based on a scientific statement. Material and Methods #6 Soil pH was estimated in water (1:2.5) or CaCl₂? #7 What was the experimental design of this experiment? #8 The material and method section should be more detailed. Information on substrate properties (e.g. available P, K, etc.) should be included. Some important information however is missing. 1: the control was autoclaved or sterilized? What kind of treatment was used to have non-mycorrhizal treatment as control?. 2: kind of fertilizers applied 3: how were anthracnose and aphids controlled? What kinds of products were used? What were their concentrations? How many applications were taken per plant? #9 The authors should take the EC and Na levels of water used during the experiment into account; #10 Acetic acid or lactic acid? #11 Do they not assess the number of spores at the end	6. Acetic acid = Ethanoic acid. It was changed in the MS. 7. AMF spores were not counted at the end of the experiment. 8. We opted for presentation of results in tables because it will require much graphs. This work is in continuation taking into account your suggestions. Thanking you.
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	of the experiment? If yes, please provide this information! Results #12 I think that the results presented in Tables 1, 2 and 3 could potentially be presented in graphs. I also think that the variation into the treatments must be explained by substrate properties, kind of fertilizer and fungicide (e.g. during the control of anthracnose) used, and water quality, not by differences in environmental conditions; #13 How confident is the authors that the control treatment was not affected by other microorganisms? Was the control sterilized? Conclusion The conclusions, while robust, are not a major addition to our understanding; could you develop the analysis more fully e.g. to consider the social and economic viability of this practice in the locality, which would add value to the analysis.	
<u>Optional/General</u> comments	#Opt1 The authors should present their results in graphs not in tables.	