



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_26467
Title of the Manuscript:	Improvement of continuous deficit irrigation efficiency on young plum tree using arbuscular mycorrhizal fungi
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>)



SDI Review Form 1.6

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	MS describe the role of AM fungi in alleviating the water stress Plum tree. Major revision required here... 1. Objectives are not well defined 2. No clarity in method section 3. Application of inoculums per pot was not done properly 4. How mixed inoculums of two Am species can be applied together? And when checking Am colonization how it is possible to know authors which AM species was functional...	Thank you for reviewing the MS 1. Objective of the work was clarified in abstract and in the last part of introduction. 2. Method section was more clarified and the experimental design was more detailed. 3. Mycorrhizal colonization was significant for all inoculated plants, which proves that the application of inoculums was successful. Mycorrhizal colonization was also measured in non-inoculated plants which showed that there was no root colonization by native AMF. These aspects have been added in the text. 4. It was chosen to use a mixture of AMF species instead to test them separately because it has been shown in several studies that the mixtures of AMF are generally more efficient (information added in method



SDI Review Form 1.6

	5. What was criteria checked for AM colonization ? arbuscules? Vesicles? Or hyphal? And how from two selected AM species how authors are convinced that which AM speceis was functional? 6. Experimental design was not proper. There is need to resetthe experiment.Ther should three treatment i.e R. intraradices , F. Mossea and one control with minimum three replicates of each. Along with different water levels.	section). In addition, Further work is underway to show the individual effect of different strains and to test the effect of other combinations.As the method of roots staining was valid for two AMF species, the data of mycorrhizal colonization concerned therefore one of the two AMF species or both together (the data on the colonization show the percentage of colonized root independently of functional species). 5. The criteria checked for AM colonization were arbuscules, Vesicles and hyphae. It was highlighted in the text. 6. Experimental design was more detailed. It was chosen to use a mixture of AMF species instead to test them separately because it has been shown in several studies that the mixtures of AMF are generally more efficient (information added in method section). This experiment in Moroccan conditions is a pioneering work. Its objective was to show the existence of a compensatory effect of mycorrhizal in case of deficit irrigation. This compensatory effect was verified in this work. It is now possible to envisage a transfer of technology; an ongoing work studies
--	--	---



SDI Review Form 1.6

	7. What was the frequency of Checking AM colonization? 30 days ? 60 days? 8. Although it is well know that AM species helps in water uptake during stressful conditions so there is need to check efficiency of each AM species separately along with separate control and various water levels. Which will of more impact to scientific community. 9. Besides how vialiblitly of purchase inoculums was checked..Just mixing the inoculums and presenting crud e result can't be accepted. There is need to rest the experiment with suggestion to considered this manuscript for the publication.	individual or combined effect of the AM species. 7. Checking of AM colonization was done 9 months after inoculation (highlighted in the text). 8. It was chosen to use a mixture of AMF species instead to test them separately because it has been shown in several studies that the mixtures of AMF are generally more efficient (information added in method section). we are currently trying to isolate indigenous species of mycorrhizae. After this indigenous species will be tested according to their efficiency of water absorption. 9. The viability of spores contained in purchased inoculums was checked before the implementation of the trial (information added in method section). In addition, the mycorrhizal colonization data show that the spores are effectively viable.
--	--	--



SDI Review Form 1.6

<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	Very poor..need to repeat the experiment	The results of this experiment are linked to the methodology adopted. The results are useful for scientific community and for the transfer of this technology (using mycorrhiza to improve the efficiency of deficit irrigation), particularly in arid areas such as certain regions of Morocco.