



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_31389
Title of the Manuscript:	Effect of arbuscular mycorrhizal fungi on the growth and development of Citrus aurantium L.
Type of the 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)
Compulsory REVISION comments		
Minor REVISION comments	Authors evaluated the effects of AMF on growth in <i>Citrus aurantium</i> L. The result showed that AM citrus seedlings were characterized by higher weight, height and numbers of leaves, and so on. I consider, this thought is very good, but this work has been done in many plants, including Citrus seedling. The main suggestion is as following: 1) the title should be revised, because the author not only test the growth index, but also the mycorrhizal diversity. 2) "introduction": please make full details for why you still used AMF to increase the growth in citrus, even though many documents have been reported. 3) "Line 105-110": Morphological identification is not exact to justify tiny spores. Molecular method is a good alternative. 4) "Discussion": please focus on the mechanism of AMF on host plants growth by nutrient uptake, photosynthesis, and phytohormone, and so on. 5) the relation of citrus growth and AMF diversity? 6) Format: Line 169-171, delete too many cited references, the same as "Line 180-182"; "Table 1, Table 4", three lines for table is ok, and add the small letters indicating whether the data is significantly different; "Fig 4, Fig 6": delete;	1) Study of Arbuscular mycorrhizal fungi diversity and its effect on growth and development of Citrus aurantium L. 2) Growth of Citrus aurantium L. is dependent on mycorrhiza (Nemec, 1991, Farih et al., 1988), The growth observed in Citrus aurantium L. could be explained by the ability of these fungi to colonize roots more rapidly and by improving the nutritional intake of plants, especially by increasing the minerals absorption (Eden, 1965; Smith et al., 1986; George et al., 1992; Toro et al., 1998), and the capacity of plants to explore more space in soil (Joner et al., 2000). 3) This species identification was based solely on the morphological characteristics, complementary studies based on molecular analyzes will be considered in future studies for an exact identification of the spores. 4) The individual AM fungal hyphae have much smaller diameters than roots, allowing access to narrower soil pores and hence increasing the soil volume explored (Schnepp et al., 2011) of a greater number of rootlets, which confirms that the AM fungi increase the rooting zone (Boureira et al., 2008), then, increasing absorption of phosphorus that may perhaps cause proliferation and cell elongation (Black, 1965) and thus, Phosphorus is translocated rapidly to the roots (probably as polyphosphate), overcoming the slow diffusion that occurs in the soil solution, these factors are the major cause of



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	"Fig 2, Fig 3, Fig 5": add bar. In short, this work has lots of problems. So, this manuscript must be revised carefully.	increased P uptake and positive AM growth responses (Smith et al., 2011). However, New researches, using a combination of molecular and physiological approaches are required to find out this complex interplay between the two symbionts. 5) Plants that develop AM symbioses can in most cases be colonized by AM fungi from different taxa (smith et al., 2011), However, plant species can have preferences for individual AM fungi, resulting in different densities of colonization (smith et al., 2009). Colonization by different AM fungi does not result in the same growth responses in a single AM plant species (Smith et al., 2004) It is clear, therefore, that there is considerable functional diversity among plant-AM fungal symbioses in terms of benefits (smith et al., 2011), thus, it is necessary, to obtain citrus plants more robust and resistant to different pathogens and stresses after transplantation, to select certain species or a complex of native fungi, composed of several species, exhibiting high infectivity and good adaptation to different climatic and soil (Artib et al., 2016). 6) Format: corrected
<u>Optional/General</u> comments		