



**SDI Review Form 1.6**

Journal Name:	<a href="#">Journal of Experimental Agriculture International</a>
Manuscript Number:	Ms_JEAI_48535
Title of the Manuscript:	Spore density and arbuscularmycorrhizal colonization in sunflower
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**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<b>Compulsory</b> REVISION comments	<ul style="list-style-type: none"> <li>- In general it is observed that the summary does not contain all the relevant information of the work.</li> <li>-The objective does not mention that several genotypes will be analyzed, nor information related to phosphorus fertilization, but nevertheless it ends with conclusions about it.</li> <li>- It is necessary to make a deeper discussion of the results obtained from the number of spores observed by genotype and stage of development in each year of sampling, since they leave out many very interesting results.</li> <li>- The explanation of the colonization rates observed must be supported in a convincing manner.</li> <li>- It is perceived that, although there is referenced literature that could help to support the explanations of the results mentioned in the document, it is not used adequately to achieve it.</li> <li>- The conclusions are contradictory and only partial, it is necessary to abound more in the analysis of the results observed in number of propagules reported by genotype and year of sampling.</li> </ul>	
<b>Minor</b> REVISION comments	<ul style="list-style-type: none"> <li>-It is suggested to report the number of spores as spores per gram or spores per kilogram, which gives a better idea of the number of propagules in a given area.</li> <li>-You have to separate some words that were put together in the text.</li> <li>- It is necessary to incorporate some details in the methodology to make it clearer</li> <li>- It is necessary to specify some information presented in the tables.</li> <li>- It is suggested to make a statistical analysis of the data by genotype and stage of development, in addition to using standard deviations more than variation coefficients because they do not reach to see differences that are perceived very large between treatments.</li> <li>- It is necessary to organize differently some paragraphs used in the discussion to give better support to the discussion of the results.</li> <li>- It is necessary to include more information to support the percentages of colonization observed and the discussion of these. Apparently they have literature that can help, but it is not used properly.</li> <li>- It is necessary to reflect on the forcefulness of explaining some results supporting them in the fertilization with phosphorus, since although the soil before the crop had low content of this element, the applied fertilization dose could compensate for said deficiencies.</li> <li>- The conclusions need to be adjusted because they give partial information of the relevant results obtained in the work.</li> <li>- It is necessary to adjust the spacing between lines in different parts of the text.</li> <li>- It is necessary to write some scientific names in italics.</li> </ul> <p>Comentarios to the manuscript Ms_JEAI_48535</p> <p>Line 12: Whattype of soilisit?</p> <p>Line 12: Separatewords in thetext: "arbuscularmycorrhizal".</p> <p>Line 12: Itwould be more convenient to putthenumber of sporeseither per gram of soilor per kilogram of soil. Thisgives more idea of thedensity of AMF present in therhizosphere of thestudiedplant.</p>	



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Line 12: With respect to the average number of reported spores, was it similar in the 3 stages of plant growth sampled? It would be interesting to know from the beginning if it varied or not.

Line 12: I suggest to put percentages in which the colonization oscillated every year

Line 12: It is important to mention from the objective of the work that the variations in the number of spores and radical colonization in different genotypes and under different level of phosphorus fertilization were evaluated.

Line 14: separate words in the text: "arbuscular mycorrhizal".

Line 22: separate words in the text: "arbuscular mycorrhizal".

Line 23: separate words in the text: "arbuscular mycorrhizal".

Line 26: AMF? It is important to use the same way of naming fungus throughout the text.

Line 28: separate words in the text: "arbuscular mycorrhizal".

Line 53: Is this a low dose of phosphorus? What is the dose that is used in a conventional way for the fertilization of this plant?

Line 55: What was the reason why the genotypes used were selected? Why compare different genotypes in each year?

Line 58: suppress the letter e at the end of the word experimente

Line 64: separate words in the text: "arbuscular mycorrhizal".

Line 67: use min instead of minute.

Line 72: 40X?

Line 83: separate words

Line 84: separate words

Table 3: Why are there two columns where the results of the average comparison analysis are presented? there seems to be one more column in each collection period in each evaluated variety

Table 3: at the end of the count of the year 2009 change the word Média by Average.

Table 3: Why not perform the statistical analysis comparing between periods of culture in the same genotype and also among the 3? in the table it is seen that in the genotype M734 the number of spores presented at the time of sowing doubles in flowering and harvest and in the genotype Helio this behavior is reversed. However, in the AgroBell the time of highest spore content is in flowering for the year 2009 and this behavior observed in



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	<p>Agrobell seems to repeat to the year 2010 although with other varieties. Interestingly, M734 presents for this year a number of spores opposite to that observed in 2009, to what do you attribute it?</p> <p>Line 90: To what is attributed that the highest density of spores can be obtained at the time of flowering and crop harvest? Although globally the highest density of spores was present in the period of flowering in the two years evaluated, this is not entirely true if the results obtained in each genotype are analyzed. It would be interesting if they could analyze their data in this way and could offer a possible explanation to the observed behavior.</p> <p>Line 95: separate Word.</p> <p>Line 96: separate Word.</p> <p>Line 97: Did you mean and?</p> <p>Line 98: What is the average number of spores that can be found in a soil similar to the one in your study area? and in a native area?</p> <p>Line 100: Separate words.</p> <p>Line 103: separate words.</p> <p>Line 111-114: This paragraph should be put once it has been demonstrated that the capacity of colonization of the plants by the AMF was high, otherwise it would not have sustenance, because the fact of finding a good number of propagules does not necessarily guarantee that these will be able to interact with the cultivation of interest in the first instance and in the second to promote the benefits reported in the literature.</p> <p>Line 115-116: The percentages of colonization observed in all genotypes in the 2 years of sampling are low. In the literature, good colonization arises when the colonization oscillates around 40 and 60%. It would be convenient to include percentages of radical colonization reported for sunflower in other works.</p> <p>Line 121: This explanation has no support because although the soil could have a low initial content, it was compensated by the fertilization that was applied to the crop. On the other hand, how does it explain the substantive decrease of P presented in the soil from 2009 to 2010? This could be the result of a high demand for the crop or a leaching due to the amount of rainfall that occurred before sowing?</p> <p>Line 124: To support this idea, it is necessary to specify if the doses of</p>	
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	<p>phosphorusthatyouapplied in thefertilization of theplants are lowerthanthosethat are applied in a conventionalmanner.</p> <p>Line 136-139: Where are the results that allow verification of this information? Line 141-144: Howdoesthisinformation relate to theresultsobtained in thisstudy?</p> <p>Line 158: separatewords</p> <p>Line 155-157:Theconclusions are contradictory and onlyphartial, itisnecessary to abound more in theanalysis of theresultsobtained in number of propagulesreportedbygenotype and year of sampling.</p> <p>Line 163: Thereportedreferencesseem to containsufficientinformation to be able to supporttheresultsobtained in thework, but in the textitisnotpossible to use itadequately to achieveit.</p>	
<p><b>Optional/General</b> comments</p>	<p>The study presents interesting information, but needs more corrections to show its relevance. I suggest you accept that condition.</p>	

**PART 2:**

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

**Reviewer Details:**

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