



**SDI Review Form 1.6**

Journal Name:	<a href="#">International Journal of Plant &amp; Soil Science</a>
Manuscript Number:	Ms_IJPSS_49748
Title of the Manuscript:	<b>Maize Yield Response and Nutrient Use Efficiencies under Different Fertilizer Applications in Contrasting Agroecosystems</b>
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:

(<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	<p>The subject and the results presented in this work are interesting. The author evaluates the maize grain yield according to different nutrient application and rainfall conditions. The main obtained results showed that the difference between the parameters was more related to rainfall conditions than to soil factor. In addition the high maize grain yield was related to the nitrogen availability than the other nutrients. Despite this importance of topic the paper need serious major revision especially at the level of results.</p> <p><b><u>Abstract</u></b></p> <ul style="list-style-type: none"> <li>• Abstract should be improved: each abbreviation must be defined (PK, NK, NP, NPK and NPK+)</li> </ul> <p><b><u>The introduction</u></b></p> <ul style="list-style-type: none"> <li>• Should be improved. Some information at the introduction level requires references: For example "Food insecurity is a great concern in Sub-Saharan Africa (SSA) given the ever-increasing human population, changing climate and persistently low crop yields. This is particularly so in Ethiopia, which is the second most populous country in Africa with an average annual population growth rate of 2.4%. Maize (Zea mays L.) has increasingly become one of the most important staple food crops in Ethiopia. "</li> </ul> <p><b><u>Materials and methods</u></b></p> <ul style="list-style-type: none"> <li>• The author must add reference to data analysis used in materials and methods level.</li> <li>• Add units for each treatment in the "Nutrient omission trials set up and management".</li> <li>• Add more information about the hybrids of maize (BH661 and BH540) used in the work (characteristics, difference, etc.).</li> <li>• The author must explain the reason for choosing to study on micro-nutrients only Zn and B.</li> </ul>	



	<p><b><u>Results</u></b></p> <p>In the study sites presented on the materials and methods section are Hawassa, Adami Tullu/Bulbula, Bako Tibe, Gobu Sayo, Omo Nada, Kersa, Tiro Afeta, Sekoru and Jimma area but:</p> <ul style="list-style-type: none"><li>• The results of the soil parameters in Table 1 are missing the following experimental sites: Jimma area, Tiro Afeta and Sekoru.</li><li>• The Figure 2 missing the results of grain yield of Sekoru area</li><li>• The table 2 missing the results of many experimental sites, in addition the sites analysed are not the same between 2015 and 2016 seasons.</li></ul> <p>For that the author should better organize the results presented at the manuscript level; he must be present the results of all experimental sites or choose two sites for each rainfall condition (two sites for high rainfall area and two sites for low rainfall area) and compare the results in this way in order to reach clear conclusions.</p> <ul style="list-style-type: none"><li>• The author must add statistical analyses in Table 2.</li><li>• The author must verify the statistical analysis of Fig. 3 at Gobu Saya and Fig. 5 at Adami Tullu, Bulbula and Hawassa, because some differences/or not need to be more improved by statistical analysis.</li></ul> <p><b><u>Discussion</u></b></p> <ul style="list-style-type: none"><li>• The author should avoid some repetition of sentences between the results and the discussion.</li><li>• Some information at the discussion level requires references: For example “since soil moisture being the medium of nutrient transport to the absorbing root, plays a key role in influencing crop response to fertilizer application.”</li></ul> <p>To better explain and discuss the difference of the grain yield of maize between each treatments and rainfall condition the author :</p> <ul style="list-style-type: none"><li>• The author should take attention also to the difference between soil types in the</li></ul>	
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	<p>discussion and conclusion because the difference between sandy and clayey soils can influence the availability of nutrients and also water to the plant.</p> <ul style="list-style-type: none"> <li>• The author should also discuss the possibility of establishing plant response strategies to increase nutrient bioavailability, such as soil acidification and exudation of organic acids as chelators by roots.</li> <li>• The author should also discuss the possibility of induction or not the specific and active transporters of certain nutrients under stress conditions (mineral deficiency and water deficit)</li> </ul>	
<b>Minor</b> REVISION comments	<ul style="list-style-type: none"> <li>• Many sentences in the manuscript must be changed or reformulated to improve the text.</li> <li>• The English must be improved in the paper</li> </ul>	
<b>Optional/General</b> comments		

**PART 2:**

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

As per the guideline of editorial office we have followed VANCOUVER reference style for our paper.

Kindly see the following link:

<http://sciencedomain.org/archives/20>

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