



SDI Review Form 1.6

Journal Name:	Asian Journal of Agricultural and Horticultural Research
Manuscript Number:	Ms_AJAHR_51321
Title of the Manuscript:	Comparative effect of biological fixation of nitrogen and chemical fertilizer on yield optimization of two Sorghum varieties in the Western Highlands
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)
Compulsory REVISION comments	<p>General comments:</p> <p>I believed that this kind of studied lacks some novelty, because in this area of knowledge is already very known the beneficial effects of the biological nitrogen fixation for a sustainable agriculture. However, I personally like of the comparisons made between sorghum varieties. I would like to see this kind of analysis comparing more varieties of sorghum, which would help us choose the best sorghum-bean combination to use in these fields. In addition, it also interesting to study and compare the results with different varieties of beans.</p> <p>For the sorghum and bean do not compete for water and nutrients, I suggest performing the T2 treatment by cultivating the sorghum after harvested the beans. In a kind of rotation of cultures. Then, the sorghum of T1 will be cultivated in a soil that do not have beans before, and the sorghum of the T2 treatment will be cultivated in a soil that had beans before.</p> <p>Besides, is important to describe the characteristics of the sorghum and bean varieties regarding its resistance to edaphic stress conditions and performing the different combinations of sorghum and bean varieties.</p> <p>Specific comments:</p> <p>In the results sections, I think that the shoot dry weight of the plants from the T1 and T2 treatments need to be evaluated, for the two varieties of sorghum. It is also interesting measure the nitrogen content in the aerial part of the plants between the different treatments.</p> <p>Besides, seems also very important to evaluate the amount of Ammonium (NH₄-N) Nitrate (NO₃-N) added to the soil by the beans cultivation and compare these values with the nitrogen compounds present in the soil when was applied chemical fertilizers. Thus, new soil analysis needs to be performed at different time points of the assay and compared between treatments.</p> <p>I personally like of the plant parameters comparation using different sorghum varieties.</p>	
Minor REVISION comments	<p>It is missing on the before production in the phrase "trends, production of major grain could"....</p> <p>In the phrase "...resent in insufficient amount, or in non-assimilable forms [6, 12]." Substitute amount for amounts.</p> <p>It is missing one the before yield in the phrase "optimization of yield of two varieties of...."</p> <p>Improve the sentence "The treatments significantly (P < .01) influenced grain yield of sorghum (Table 2). Thus, the treatments T1 (V2: 2.01 ± 0.07 t.ha-1) and T2 (V2: 2.15 ± 0.03 t.ha-1) had significantly higher grain yields than the treatment T0 (V2: 0.55 ± 0.05 t.ha-1)." Maybe you can start with Comparing with control, the T1 and T2 treatments.....</p>	



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<u>Optional/General</u> comments	<p>In the abstract I remove “the month of”</p> <p>In the introduction I change the phrase “About 90% of sorghum and 70% of world production is in developing countries” for About 90% of sorghum and 70% of world production is obtained in developing countries.</p> <p>In introduction I substitute “in view of the very strong” to because the very strong..</p>	

PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	
If plagiarism is suspected, <u>please provide related proofs or web links.</u>	I suspect of plagiarism. You also check at least in the introduction.	

Reviewer Details:

Name:	Ana Paço
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