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SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	**2014_AJEA_12375**
Title of the Manuscript:	**RESPONSE OF MAIZE VARIETIES (*Zea mays*) TO BIOCHAR AMENDED SOIL IN LAFIA, NIGERIA.**

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	**Authors' response to final evaluator's comments**
1. The manuscript does not conform to the standards given in the author's guidelines of the journal. The author(s) need to revise the manuscript according to the guidelines and they can use the journal's provided template.	**Commend noted**
2. Title of table 1 need to be revised. For instance, they can say "Analysis data for biochar and soil (before and after experiments)"	
3. Some of the previous raised issues are not yet addressed in the revised manuscript. For instance, amount of CEC of 8 mol kg^{-1} for kaolinitic soil is too high. Secondly, the sum of cations is exceeding amount of CEC in mol kg^{-1} and amounts of Ca (4.34mol kg^{-1}) and Mg (4.49mol kg^{-1}) which are overestimated have not been tackled. The author(s) need to verify possibly there was an error in analysis or calculation of data. Usually kaolinite soils have CEC of less than 10 cmol kg^{-1} soil. If possible the authors can mention the name of the soil analysis method they used.	**There was a mixed up in the soil analysis before planting, the authors conducted a new soil analysis**
4. The soil data given after harvest is not clear for which treatment means. The author(s) need to present soil data for each treatment mean.	
5. CEC in table 1 decreased by 25% and pH increased by 1unit (pH in H_2O) and 0.5unit (pH in $CaCl_2$) after biochar application. We know that CEC of kaolinitic soils is pH dependent and in this case we expect the CEC to increase with increase in pH. In this case it appears their results are the opposite which is a contradiction. The authors need to verify their data.	
6. The change in amount of Silt by 16% and Sand by 23% after harvest is too much. The author(s) need to verify this as possibly it could be either due to sampling or analysis error.	
7. Under discussion section, line 201, the author(s) are arguing that soil CEC increased due to biochar application and yet in their soil data in table 1, CEC decreased by 25%. This is in contradiction and they need to verify and correct the anomaly.	
8. Table 4, the results presentation of 100grain weight (g) is not appropriate for fertilizer trials. The authors need to present it as grain weight as kg or g/pot, kg/plot or kg/ha. This definitely would result into significant differences in their grain weight results and it is the most appropriate way of presenting grain weight data for fertilizer experiments. The author(s) need to consider revising this.	**Data on grain weight are now used**
9. Heading of recommendation section should be maintained as Conclusion	**Commend noted**
10. Reference number 26 has been quoted in the text but not given under references. The author(s) need to include it.	