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Journal Name:	Asian Journal of Soil Science and Plant Nutrition
Manuscript Number:	Ms_AJSSPN_33153
Title of the Manuscript:	EFFECTS OF TOPSOIL REMOVAL AND AMENDMENTS ON SOIL BULK DENSITY AND MAIZE YIELD IN THE SOUTHERN GUINEA SAVANNA OF NIGERIA
Type of the Article	Original Research Article

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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.

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PART 1: Review Comments

	Reviewer's comment See the attached file for more information on comments.	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	What was the control plot? How was irrigation scheduled as it has an effect on nutrient uptake? If there was an interaction effect between topsoil removal and soil amendment on BD, then topsoil removal cannot be discussed independently. If there was an interaction effect on grain yield then the authors should discuss the interaction effect and not the individual treatments.	"for topsoil removal", the control for the topsoil removal is the 0 cm (No topsoil removal), while the control for soil amendments is zero application, ZA (no soil amendments) How was irrigation scheduled This research was rain fed. There was no artificial application of water The interaction has been (discussed see line 229 – 342 and 334 – 340) The interaction between Topsoil removal and soil amendments cause significant reduction in the grain yield of maize in this study. The mean of both locations, Makurdi and Otobi, and seasons 2012 and 2013, (n = 4) indicate the lowest yield reduction (17 %) due to application of poultry manure at 5 cm depth of topsoil removal (Figure 3). However, at 20 cm depth, application of poultry manure caused the highest maize grain yield reduction (59 %). Likewise, the trio interactions of topsoil removal, cropping systems and soil amendments showed significant reductions in the grain yield of maize (Figure 4). The highest percentage yield reduction (62 %) was recorded at 20 cm depth for sole maize under zero application while, the lowest yield reduction (15 %) in the interaction which translates to the highest grain yield was observed at 5 cm depth under sole maize with the application of inorganic fertilizer (Figure 4). A higher maize yield reduction was observed on maize soybean intercrop plots compared with the sole maize plots across the depths with the application of inorganic fertilizer. Whereas, application of poultry manure caused higher yield reduction under sole maize plots compared with maize soybean intercrop at 5 and 10 cm depths (Figure 4).



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		The general trend in the interactions between topsoil removal, cropping systems and soil amendments was that, application of inorganic fertilizer caused less maize grain yield reduction under sole maize system whereas application poultry manure caused less maize grain yield reduction under maize intercrop system across the depth of topsoil removal (Figure 4). This implied that while inorganic fertilizer would improve the grain yield of maize grown as sole under topsoil loss condition, the grain would be better enhanced with the application of poultry under maize intercrop system under topsoil loss condition.
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Minor REVISION comments	Keywords should be other words that are not in title. The title suggest that the study was done on maize only. Was the poultry manure analysed for nutritional quality, before application?	Keywords have been corrected as followed (see line 21): Artificial desurfacing; poultry manure; soil rehabilitation maize performance The title suggest that the study was done on maize only Maize performance grown as sole and as intercrop with soybean was evaluated under topsoil soil loss condition with different amendments. The poultry manure was analysed for nutritional quality. The poultry manure was analysed for nutritional quality see line 81, 87 – 91 Chemical properties of poultry manure applied The chemical properties of the poultry (PM) manure applied had pH (H₂O) of 6.90, while organic carbon content and total nitrogen were 18.30 and 1.67 g kg⁻¹ Exchangeable K and Ca were 2.72 and 11.60 cmol kg⁻¹ while available P was 4.88 Table 1: Chemical properties of the poultry manure (PM) applied <table border="1"> <thead> <tr> <th>Chemical properties</th><th>Value</th></tr> </thead> <tbody> <tr> <td>pH (1:1) H₂O</td><td>6.9</td></tr> <tr> <td>Organic carbon (g kg⁻¹)</td><td>18.30</td></tr> <tr> <td>Total N (g kg⁻¹)</td><td>1.67</td></tr> <tr> <td>Exchangeable K (cmol kg⁻¹)</td><td>2.72</td></tr> <tr> <td>Exchangeable Ca (cmol kg⁻¹)</td><td>11.60</td></tr> <tr> <td>Phosphorus (mg kg⁻¹)</td><td>4.88</td></tr> </tbody> </table>	Chemical properties	Value	pH (1:1) H ₂ O	6.9	Organic carbon (g kg ⁻¹)	18.30	Total N (g kg ⁻¹)	1.67	Exchangeable K (cmol kg ⁻¹)	2.72	Exchangeable Ca (cmol kg ⁻¹)	11.60	Phosphorus (mg kg ⁻¹)	4.88
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Optional/General comments																