

Line 21: Keywords should be other words that are not in title. They help with searching for the paper.

Keywords have been corrected as followed: Artificial desurfacing; poultry manure; soil rehabilitation maize performance

Line 66 – 69: “The factors were topsoil removal (0 cm, 5 cm, 10 cm, 15 cm and 20 cm); cropping systems (sole maize (SM), sole soybeans (SS) and maize/soybean intercrop (MSI)); and soil amendments (poultry manure, inorganic fertilizer and zero application).”

Line 66 – 68 has been corrected to “The factors were topsoil removal (0 cm, 5 cm, 10 cm, 15 cm and 20 cm); cropping systems sole maize (SM) and maize/soybean intercrop (MSI); and soil amendments (poultry manure, inorganic fertilizer and zero application).”

Sole soybean (SS) has been deleted.

The title suggest that the study was done on maize only. What was the control in this study?

Maize performance grown as sole and as intercrop with soybean was evaluated under topsoil soil loss condition with different amendments.

The control for the topsoil removal if the 0 cm (undersurfaced depth), while the control for soil amendments is zero application, ZA (no nutrient application)

Line 81: Was the poultry manure analysed for nutritional quality, before application?

The poultry manure was analysed for nutritional quality see line 81, 87 – 91

Line 107 - 109: Font size. How was irrigation scheduled as it has an effect on nutrient uptake? Removal of soil layers exposed different soil textures, which requires different irrigation schedules.

Font size has been corrected to 12 Times new roman see line 112 – 115

Line 112: “...and means were separated using LSD”. Which test was used to separate the treatment means.

Line 112 has been corrected as follows (see line 117 – 119): Data generated were subjected to analysis of variance (ANOVA) test, using GENSTAT release 12.1 (VSN International Ltd) Software and means were separated using Least Significant Difference (LSD) at 5 % level of probability.

Line 129: “...highest on the control plot...”. What was the control plot? No application of soil amendments with no top soil removal?

The control for the topsoil removal if the 0 cm (No topsoil removal), while the control for soil amendments is zero application, ZA (no soil amendments)

Line 151: If there was an interaction effect between topsoil removal and soil amendment on BD, then topsoil removal cannot be discussed independently as in line 135 – 140.

The interaction effect of topsoil removal and soil amendments on BD has been presented with the result of the main effect (see line 147 – 155)

The interaction between depth of topsoil removal and soil amendments significantly affected soil bulk density during 2012 and 2013 cropping seasons at Makurdi and Otobi (Figure 1). The mean values of soil bulk density indicate a significant reduction at each depth due to application of poultry manure compared with values obtained where inorganic fertilizer was applied and also the zero application (control). Zero application at 20 cm depths gave the highest values of soil bulk density at Makurdi. Also, at Otobi the interaction caused significant changes on soil BD (Figure 1). Application of PM on the 0 cm depth significantly (Figure 1) reduced the BD while the highest value was observed on the plots treated with IF at the 20 cm depth in 2012.

Line 154: "...4, 6 and 8 WAP...". Fig. 1. Does not show WAP.

Only mean values of BD for the interaction between topsoil removal and amendments are shown in Figure 1 (see current Figure 1 159 – 162)

Line 211: "...intercrop (MSI) plots (1565 kg)...". Is this yield for maize only or a combination of maize and soybean? If for maize only then there is no advantage since the soybean yield will increase the total yield.

The statements " which translate to about 11 % yield advantage of SM over MSI during the 2012 cropping season" has been deleted

(See line 222 – 223) Sole maize (SM) plots had significant higher grain yield (1765 kg ha^{-1}) than the maize soybean intercrop (MSI) plots (1565 kg ha^{-1}) (Table 4).

Line 216 - 271: So the high organic matter content and total nitrogen in the control plots did not have any advantage.

The high organic matter content and total nitrogen in the control plots have advantage. This was reported to improve maize performance (see line 212 – 217)

The significant higher height of maize observed at the 0 cm depth (control plot) could be attributed to higher nutrient status at soil surface compared with the subsoil as revealed by the results of the analyzed soil chemical properties before planting where nutrient elements decreased with increase in the depth of topsoil removal. Topsoil which was richer in soil

organic matter and lower soil bulk density was more favourable for maize vegetative growth to produce taller plants compared with the desurfaced depths.

Line 222: If there was an interaction effect on grain yield then the authors should discuss the interaction effect and not the individual treatments.

The interactions on grain yield has been presented and 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).

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.