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Interactive comment on "Impact of land management system on crop yields and soil fertility in Cameroon" *by* D. Tsozué et al.

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The authors thank the Anonymous referee #2 for the specific comments and suggestions which enable to improve the quality of the manuscript. Please, have below, some responses, clarifications and changes.

1) Question: The introduction is too general and it does not focus on the aim of the work. My suggestion is doing a state of art about different soil management in semi-arid soils. Answer: The introduction focuses on the aim of the work. In fact, as we stated at the end of the introduction, direct-seeding mulch-based cropping (DMC) have permitted better control of erosion, a significant reduction in the cost of production and restoration of soil fertility. They have been introduced in the North Cameroon in other to remediate to the consequences of land degradation. The introduction clearly states art

on the causes, the consequences and the importance of this phenomenon in the world and particularly in this part of the tropical zone where soils are specially threatened, and justify the introduction of DCM in this zone and its experimentation in juxtaposition to tillage seeding (TS) and direct seeding (DS) in other to stop in the near future this phenomenon.

2) Question: The results are too long and the same data are repeated many times. Answer: The same data are repeated for better exploitation and comment of the results. We have done modifications according to your remarks.

3) Question: In the discussion is not clear which was the effect of fertilization and seeding on soil. Answer: In de discussion, the effect of fertilization is for example, an acidification of soils in different experimental plots due to losses of mineral elements through exportation of crops, which the important yields are consequence of increase use of fertilizer and specifically the use of nitrogen fertilizer. Also, there is an improvement of physical and chemical properties of soils in the DMC systems from F1 to F3 fertilization level where supply of fertilizer is more important contrary to the other systems.

4) Question: Miss statistical analysis in the table 3 and 4, therefore is difficult comment these data Answer: We add statistical analysis in Table 3 and 4.

5) Question: In my opinion the fig 3 is not necessary. The R2 is too low. Answer: Low R2 values permitted us to conclude that cumulated rainfall did not have any impact on the agricultural yields and the figure 3 permitted to visualize the low correlation between rainfall and yields.

In the supplement, we add references where suggested and improve according to your remarks. The chapter 3.21, 3.2.2 and 3.2.3 have been merged in three paragraphs corresponding to F1, F2 and F3. Acronyms in Table 5 are explained in the methodology. The chapter 3.1 cannot be resume because it content characteristics need for land suitability evaluation in table 5.

We have already revised the manuscript accordingly. Thank you very much again.

Interactive comment on Solid Earth Discuss., 7, 1761, 2015.