

Interactive comment on “Ecological sanitation products reuse for agriculture in Sahel: effects on soil properties” by D. Sangare et al.

Anonymous Referee #2

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The title is not real because the paper only showed the effect on TOC and EC.

The topic of this paper has been developed and researched for a long time, but the application of TGW and UTC could a good solution for increasing the crop growing in this African area, saving inorganic fertilizers and probably improving the soils properties. However the work has shown very few results, I think that the authors have to study more parameters, especially in the soil, to publish this paper in SOIL.

Introduction This part is well redacted, but I want to subject to the authors reviewing some works that can improve it. Page 2, line 25: “Food insecurity is particulary. . . . soil fertility” , please provide a reference!

Page 3, paragraph 20: Please revise the study of “Morugan et al., 2011” that show the

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influence of wastewater reuse in a large number of soil properties.

Material and Methods:

The design of the experiment is clear, but in my opinion, the authors have to rewrite part of this apart because tables 1, 2 and 3 must be included here in MM, these data are the main characteristic of the material used for the experiment. Please rename the tables according with the citation in text.

The authors have not provided any data about the heavy metals content in the refuses why? Please include an explanation.

Please include a new table with main characteristic of soil: TOC, N, P, K, Ca, Na, Texture, Cbiomass, and classify the soil.

Results and discussion:

Rewrite this part and remove the tables 1-3 and the comments about, to MM. Page 12, “The bacterial load results showed that urine and compost can be used. . . .” Please indicate under what regulation?

Page 13, the end of paragraph 20: “At the same time . . .” please review and cite other works as “Garcia-Orenes et al., 2005” . In the follow paragraph the authors cited other works that showed that compost application improve soil biomass, but they do not study this parameter; in my opinion the results about soil have to be improve, providing new data about the evolution in the soil of: Cbiomass, N, P, K, Na, . . . Also should be very interesting to study the survival of coliform bacteria and E. Coli in the soil after UTC application. The results have shoved that there are not significant references in TOC in soil between TGW and TGW+UTC treatments, but the compost has 80% of TOC, how do you explain this result? Please provide a supported explanation.

Interactive comment on SOIL Discuss., 2, 291, 2015.