

Interactive comment on “Organic wastes from bioenergy and ecological sanitation as soil fertility improver: a field experiment in a tropical Andosol” by A. Krause et al.

Anonymous Referee #2

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The paper titled “Organic wastes from bioenergy and ecological sanitation as soil fertility improver: a field experiment in a tropical Andosol” deals with an interesting aspect that completely fits the scope of the journal, such as the effects of different soil amendments, mainly organic amendments, on a type of soil with requirements of P. However, I consider that this study does not represent an innovative contribution to the knowledge concerning soil management and constitutes a work mainly descriptive. The work is correctly outlined, but in some aspects (description of the soil amendments, discussion of the results, etc.) is a little confusing. For this, the following comments are some suggestions to improve the work. The authors have studied the effects in the yield and nutrient status of the plants studied and on the soil physico-chemical properties.

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In the Abstract is not clear the soil parameters determined and only after reading the Materials and Methods section I found that the authors have studied more parameters than physico-chemical parameters (pH and EC); please, specify the parameters studied in the abstract. The introduction perfectly reflects the topic and the main objectives of the study; however, the authors should explain in more detail some aspects of the previous studies that are slightly mentioned, to justify the use of these specific soil amendments. In the Materials and Methods section, the experimental design is adequately explained, except for the characteristics and origin of the soil amendments used (only described for urine). The characteristics of the soil amendments used constitute an essential aspect to evaluate the effects of their use in the soil-plant system. In addition, the methods for the determination of several parameters are described in the table and figure legends; the authors should include this in the part of Materials and Methods, because it is a little confusing. In the Statistical analysis section, the authors comment the number of replications of each treatment. I consider that this aspect should be moved to the section of the plot preparation. Why is different the number of replications in the treatments? In general, the Results and Discussion section should be revised and clarified, because apart from being mainly descriptive, some aspects in the discussion of the parameters are difficult to understand. As an example, it is not clear the effect of the properties of the soil amendments on the soil characteristics (see previous comment related to the characteristics of the soil amendments). Why were the crops African egg and pepper not harvested? Section 3.6 should be included in the discussion of the results, since it is not clear if it is part of the conclusions or of the discussion of the results. In addition, it would be interesting to include a figure with the climatic data at the experimental site during the period of study, which can help in the discussion of the effects of the treatments on the soil, instead of mentioning only average values. The Conclusions section should be summarized, only including the main aspects found in the study, avoiding speculations and general ideas.