Reviewer's report

Title: Survival of Ascaris eggs and hygienic quality of human excreta in Vietnamese composting latrines

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Reviewer: Jeroen Ensink

Reviewer's report:

1. Is the question posed by the authors new and well defined?
The issue on the safety of excreta before use in agriculture, especially around the topic of helminth survival is not new, though the authors define their question further by asking if current practices by farmers in Vietnam are safe or not.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
The methods used for the parasitology and other parameters like temperature, pH, ammonia etc are well described and appropriate. I feel that the study design is not appropriate, why did the authors chose to conduct an controlled experiment to evaluate farmers practices in order to judge if these practices are safe. Collecting samples from latrines and/or from agricultural fields and the analysis of these for the presence of Ascaris and other helminth eggs would have been appropriate.

3. Are the data sound and well controlled?
Only 5 heaps were investigated and each had a different lime concentration added, with one control heap. Sample size is therefore too small and therefore probably explains why the authors have not reported any test statistics.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
This is unclear to me.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
No, the authors make broad sweeping statements that in my opinion are not supported by the data. For example the authors state that their findings indicate that current farming practices with excreta are safe and can't explain the high helminth prevalence in Vietnam. This is a rather bald statement on the results of 5 experimental heaps of excreta. In addition they claim that a 99% reduction of helminth egg numbers would be sufficient. With adult female ascaris worms producing over 100,000 eggs per day, and many patient harbouring several adult female worms the output per day could be several million eggs per day and this is without taking the other family members into consideration. A pit could this be
seeded with several millions of eggs and thus stating that a 99% reduction would be ample is a gross simplification as several thousands of eggs would still be released into agricultural systems and with ascaris eggs a single egg can result in an infection.

6. Do the title and abstract accurately convey what has been found?
Yes

7. Is the writing acceptable?
Yes, the english is good and clear

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests.