



HHS Public Access

Author manuscript

J Water Sanit Hyg Dev. Author manuscript; available in PMC 2015 November 06.

Published in final edited form as:

J Water Sanit Hyg Dev. 2014 ; 4(4): 773–733.

Letters to the Editor

D. Berendes^{1,2}, K. Levy¹, J. Knee³, T. Handzel², and V. Hill³

¹Department of Environmental Health, Rollins School of Public Health, Emory University, Atlanta, Georgia, USA

²Emergency Response and Recovery Branch, Division of Global Health Protection, Centers for Disease Control and Prevention, Atlanta, GA, USA

³Environmental Microbiology Laboratory, Waterborne Disease Prevention Branch, Division of Food, Waterborne, and Environmental Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Dear Editor

The authors of ‘Thermophilic co-composting of human wastes in Haiti’ (*Journal of Water, Sanitation and Hygiene for Development* 3(4): 649-654) refer to the results of a ‘collaboration with the US Centers for Disease Control and Prevention (CDC) that showed rapid pathogen die-off rates within the compost piles.’ CDC and Emory University researchers did carry out an evaluation of pathogen die-off in Sustainable Organic Integrated Livelihoods’ (SOIL’s) composting system in Haiti that found reductions in *Escherichia coli* levels to below detection levels within 8-14 weeks and rendering *Ascaris* ova not viable within 8 weeks, as cited by the authors. However, we have identified issues with the way that the authors portrayed these findings.

First, the authors state that ‘these analyses showed that ... *E. coli* levels were reduced to acceptable levels (below 1,000 CFU/g) within six weeks.’ The Class A sludge standard as defined by the U.S. Environmental Protection Agency is based on fecal coliforms, not *E. coli*, which are a subset of fecal coliforms. The Haitian Government does not currently have guidelines for sewage/sludge re-use. Therefore our data do not support the conclusion that *E. coli* levels in the compost were ‘acceptable’ by current standards.

The authors also claim that because ‘these tests indicated that given the similar die-off curves for *E. coli* and *Ascaris*, future pathogen testing can focus specifically on *E. coli* as an indicator and regular testing for *Ascaris* is not necessary.’ In our study, the time until *E. coli* and *Ascaris* reached undetectable levels was similar, but the starting concentrations of these organisms were likely different. Helminth ova are well-known to have different inactivation kinetics from vegetative bacteria. If *Ascaris* concentrations are higher at some point in the future or in waste from different communities, there is certainly a possibility that viable *Ascaris* ova could be present in SOIL-treated compost after 8 weeks.

Furthermore, while we provided SOIL with an internal report with the conclusions from our evaluation as a courtesy, we did not give the organization approval to disseminate the results of our study in a peer-reviewed journal. We are currently preparing a manuscript that will

detail the results of our study with interpretations and conclusions that we find more fitting of the data.

Thank you,

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript