

Interactive comment on “The past, present, and future of soils and human health studies” by E. C. Brevik and T. J. Sauer

D. Weindorf (Referee)

david.weindorf@ttu.edu

Received and published: 28 May 2014

Having read this article, I find it to be an excellent overview of soils and human health. The authors do a good job of recounting the historical developments in soil/human health studies and have explored many contemporary relationships as well. The paper is well written, with extensive references which readers will find helpful. A few minor corrections to consider:

1. Page 52, Line 24-25: ...probably think about... ...soils when thinking.... State this differently. Avoid using the same word twice in the same sentence.
2. Page 54, Line 4: ...recognizing a link between enduring agriculture....

C1

3. Page 54, Line 17: 1957,
4. Page 54, Line 20: (PSNRU) at Cornell University in 1940....
5. Page 54, Line 25: 1939,
6. Page 57, Line 4: Replace "on the other hand" with "conversely"; brevity is always better.
7. Page 59, Line 22: I would really like to see the authors highlight the fact that the soil health is a major area of focus for the NRCS right now. They mention "other branches of the USDA..." but I think that exploring the NRCS emphasis on soil health would be worth 2-3 sentences at least.
8. Page 60, Line 11: Suggest adding Weindorf et al., 2013 to the list of studies here as well: Weindorf, D.C., L. Paulette, and T. Man. 2013. In-situ assessment of metal contamination via portable x-ray fluorescence spectroscopy: Zlatna, Romania. Environmental Pollution 182:92-100. doi: 10.1016/j.envpol.2013.07.008. This is an excellent example of heavy metal pollution in Eastern Europe derived from smelting activities.
9. Page 64, Line 17: Avoid providing new citations (not previously mentioned) in the conclusions section. Also, Lines 13-17, the authors mention quite a bit about funding in the conclusions, however I did not see this emphasized or discussed in the paper. It would seem misplaced to put new material in the conclusions that has not been previously discussed in the paper.
10. Page 64, Line 25: replace "weight" with "importance"

Just a couple of other comments. The authors might want to add some studies/references from China. I did see a couple, but I know that heavy metals are a major concern in that region. Also, when discussing the relationship of plants to soils with regard to human health, I think the important topic of phytoremediation should be discussed with a few sentences. It is well known that certain species are accumulators of heavy metals. This has implications for both improving soil health, but also careful

C2

use and disposal of the metal accumulating plants.

Summarily, I find this paper to be excellent and certainly worthy of publication. I fully support its acceptance for publication, following consideration of the aforementioned minor corrections.

Interactive comment on SOIL Discuss., 1, 51, 2014.