

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

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Received and published: 3 June 2014

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.

The sentence has been reworded.

2. Page 54, Line 4: ...recognizing a link between enduring agriculture....

The sentence has been reworded.

3. Page 54, Line 17: 1957,

The sentence has been reworded.

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4. Page 54, Line 20: (PSNRU) at Cornell University in 1940....

The paragraph has been reworked to be in chronological order.

5. Page 54, Line 25: 1939,

We realize that 1939 is chronologically before some of the advances mentioned in the previous paragraph. However, the previous paragraph covers advances made in the USDA over the first ~1/2 of the 20th Century, while this paragraph moves to the U.K. and subsequent paragraphs also cover non-USDA issues over the first ~1/2 of the 20th Century. Therefore, even though the presentation isn't strictly chronological, we feel this is the best approach to presenting the history.

6. Page 57, Line 4: Replace "on the other hand" with "conversely"; brevity is always better.

Suggested change made.

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.

Mention of the NRCS focus on soil health, and the importance of soil health to human health, has been added to this portion of the manuscript.

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.

This reference has been added.

9. Page 64, Line 17: Avoid providing new citations (not previously mentioned) in the

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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.

The referenced section on funding has been removed from “Conclusions” and moved to “Future Topics and Challenges”.

10. Page 64, Line 25: replace "weight" with "importance"

The suggested change has been made.

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 use and disposal of the metal accumulating plants.

Some additional references from China (Chen et al., 2005; Khan et al., 2008; Leung et al., 2008; Zhuang et al., 2009; Ye et al., 2014) have been added and a brief discussion of phytoremediation and the passing of contaminants up the food chain by plants has been added to the 4th paragraph in the section “The Present”.

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