Biogeosciences Discuss., 8, C3121–C3122, 2011
www.biogeosciences-discuss.net/8/C3121/2011/

Biogeosciences Discussions

Interactive comment on "Phosphorus transformations as a function of pedogenesis: a synthesis of soil phosphorus data using Hedley fractionation method" *by* X. Yang and W. M. Post

X. Yang and W. M. Post

yangx2@ornl.gov

Received and published: 15 September 2011

We thank the reviewer 2 for his/her comments. We respond in detail to the reviewer's comments below (our responses are given immediately below the reviewer's comments).

After this referee #2 read the manuscript in detail but before completing his own review, an excellent review by another expert in this field has been posted (Anonymus referee # 1, 27 Jul 2011). This referee (# 2) fully agrees with that review, and he scarcely can add any substantial additional comment. The only complementary recommendation is that the authors should consider actual new literature in this field including recent

reviews on that topic (e.g., Negassa,W., P. Leinweber. How does the Hedley sequential P fractionation reflect impacts of land use and management on soil phosphorus – a review. Journal of Plant Nutrition and Soil Science 172 (2009) 305-325; Condron, L., S. Newman. Revisiting the fundamentals of phosphorus fractionation of sediments and soil. J. Soil Sediments 11(2011)830-840.

We would like to thank the reviewer for his/her recommendations. Negassa and Leinweber(2009) provided an excellent review on how Hedley fractionation P data reflected impacts of land use and management on soil P. They compiled and summarized the concentrations and proportions of P fractions obtained by the Hedley fraction method in contrasting land-use and management systems of temperate, subtropical, and tropical soils. Although they provided some data on P fractions in soils of natural ecosystems, most of the data presented in the paper was from various land-use and management systems. Condron and Newman (2011) highlighted fundamental components of Hedley fractionation method that needs to be carefully considered in application and provided recommended guidelines for fractionation procedures appropriate for different broad-use categories. We have cited both papers in the introduction section in the revised text.

reference:

Condron, L. M., and S. Newman (2011), Revisiting the fundamentals of phosphorus fractionation of sediments and soils, Journal of Soils and Sediments, 11(5), 830-840.

Negassa, W., and P. Leinweber (2009), How does the Hedley sequential phosphorus fractionation reflect impacts of land use and management on soil phosphorus: A review, Journal of Plant Nutrition and Soil Science, 172(3), 305-325.

Interactive comment on Biogeosciences Discuss., 8, 5907, 2011.