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Biogeosciences
Discussions

Interactive comment on "Multiyear precipitation reduction strongly decrease carbon uptake over North China" *by* W. P. Yuan et al.

Anonymous Referee #2

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This response from the Authors does nothing to change my opinion on this study.

The additional information concerning the CASA model methods in particular simply reinforces the Authors' improper application of that model to predict GPP. Stating that a model like this should "Theoretically" be able to accurately predict GPP does not change the fact that it was never intended nor designed to predict GPP, and the weak correlation with measured GPP shown in the Figure 1 attached to this Author Reply basically proves that fact. To imply that "because it was developed in the early 1990s and there were no available GPP observations at that time for calibrating model parameters" could not be farther from the truth – GPP measurements have always been more abundant than NPP measurements. The fact is that previous publications of CASA model correlations with measured NPP have been much stronger, with Rˆ2 results >

0.9. The weak correlations in this added FIgure 1 conclusively show that the Authors have made unproven assumptions about the real (not theoretical) GPP:NPP ratio in their study region, and the results they present are thereby invalid.

I stand confidently by all my initial comments on this manuscript and the recommendation to reject it for publication.

Interactive comment on Biogeosciences Discuss., 10, 1605, 2013.