

Author response to

Interactive comment on “Controls of terrestrial ecosystem nitrogen loss on simulated productivity responses to elevated CO₂” by Johannes Meyerholt and Sönke Zaehle

Anonymous Referee #1

Received and published: 2 July 2018

We are very grateful to Anonymous Referee #1 for the positive comments on our manuscript and constructive suggestions to further improve its quality.

One clarification that is needed, is how agriculture is treated since the authors report and draw conclusions about the influence in crop dominated areas, but to my knowledge crops are not modelled in O-CN.

We did not include crops (and the associated fertilizer use) in the local experiments, but do so in the global simulations, which is where we refer to N loss hotspots in regions with high density of agricultural land use (p10 l11). While this is in principle described in the Methods section, we will emphasize this difference stronger in the revised MS.

The paper would benefit from a Conclusion section, where the authors summarize the good conclusions that they draw from this study.

We agree and will revise the MS to have separate sections for our discussion and conclusions.

It was hard to follow the "pseudo sites" (S₁, S₂, S₃), better to name them: S₀, S_T and S_P.

We agree and will adapt this more descriptive naming convention.