

## ***Interactive comment on “Have ozone effects on carbon sequestration been over-estimated? A new biomass response function for wheat” by H. Pleijel et al.***

**Anonymous Referee #1**

Received and published: 9 May 2014

This paper highlights a significant source of error in the current practice of estimating changes in agro-ecosystem carbon balance under elevated ozone from crop yield responses. It quantifies the consequence of driving a model of carbon balance across Europe with the biomass rather than yield response to ozone of wheat. This deserves to be published in my opinion. However, as written, the paper implies that biomass response of a crop to ozone is a direct measure of changing ecosystem carbon balance. It needs to be edited to reflect that standing biomass is not a measure of net ecosystem productivity and that comprehensive understanding of carbon cycling responses also depends on knowledge of downstream effects on the other elements of net ecosystem productivity e.g. heterotrophic respiration and soil organic matter incorporation.

C1530

---

Interactive comment on Biogeosciences Discuss., 11, 5511, 2014.

C1531