

Interactive comment on “Remote sensing of plant trait responses to field-based plant-soil feedback using UAV-based optical sensors” by Bob van der Meij et al.

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Received and published: 19 December 2016

The authors have carried out a detailed study and presented a well written report on the outcome. Previous research has been thoroughly reviewed and the methods used have been well described. The conclusion that UAV-mounted hyperspectral sensors can adequately quantify plant traits may be a leap of faith considering that the best R^2 values for fresh biomass and N content were only 0.56 and 0.68 respectively. The PSF results could have been explained better; it is not clear what a good $F_{6,21}$ value is and the range varies from around 11 to almost 27. It could be argued that reflectance is not a good proxy for plant height and will never be, but it might well be expected to provide some measure of nutrient concentration. With the obvious importance of the

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NIR wavelengths, perhaps more attention should be paid to this region of the spectrum rather than waste processing time on PLS analysis of all the bands.

Grammatical corrections. 3/32 replace good with well; delete remote based 4/12 of the field's 4/36 weighing not weighting 4/37 change to once in each plot. 5/1 ground not grinded; change to weighed in tin cups and then. . . 5/17 found to be inadequate 5/32 replace conflicting with conflict 6/31 replace was with were; change 'and using' to and a non-parametric. . . 9/6 replace till with to 11/23 use a more extensive. . . Colours in figs 5 and 6 should match those of the spectra in fig 4 Fig 6: small letters above each bar are not explained.

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2016-452, 2016.

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