

Interactive comment on “The nitrogen, carbon and greenhouse gas budget of a grazed, cut and fertilised temperate grassland” by Stephanie K. Jones et al.

Anonymous Referee #1

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The manuscript provides data of C-, N- and greenhouse gas balances of an intensively monitored Scottish grassland site over a period of nine years. Although it is not completely new to calculate balances like this, not a lot of studies exist where so many aspects have actually been measured (although a lot is still modelled or taken from the literature) and where measurements cover such a long time. Interesting is also the important comparison between calculated C and N budgets and measured changes of soil stocks. While the discussion of the latter covers the valid points, I would not overemphasize this, as differences between measurement and calculation are small (if significant at all).

There are several aspects, especially concerning the description of Material and

C1

Methods, that are not completely clear and require a bit more information for the reader to be able to follow and interpret the results. Also in the Discussion, there are some points that need a bit of attention from the part of the authors. Please see the uploaded annotated copy of the manuscript.

Please also note the supplement to this comment:

<http://www.biogeosciences-discuss.net/bg-2016-221/bg-2016-221-RC1-supplement.pdf>

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2016-221, 2016.

C2