

Biogeosciences Discuss., referee comment RC2  
<https://doi.org/10.5194/bg-2022-6-RC2>, 2022  
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## **Comment on bg-2022-6**

Anonymous Referee #2

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Referee comment on "Assessing the effects of no-till on SOC dynamics throughout the soil profile after grassland renovation and conversion to silage maize" by Josue De Los Rios et al., Biogeosciences Discuss., <https://doi.org/10.5194/bg-2022-6-RC2>, 2022

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The manuscript reports annual SOC stocks over a period of 6 years comparing different management systems. However, bulk density was only determined once at the end of the study in 0-30 cm and estimated for 30-60 and 60-90 cm and, thus, the SOC stock changes are highly speculative. Further, SOC stocks must be calculated on equivalent soil mass basis based on measured bulk densities. It is unclear whether SOC stocks at the control were in equilibrium or the baseline was drifting. Further, total C is reported as SOC without indicating test for carbonates. More comments and suggestions in an annotated manuscript attached.

Please also note the supplement to this comment:

<https://bg.copernicus.org/preprints/bg-2022-6/bg-2022-6-RC2-supplement.pdf>