

Interactive comment on "Cultivated grasslands present a higher soil organic carbon sequestration efficiency under leguminous than under gramineous species" by Yu Liu et al.

Yu Liu et al.

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Thank you very much for your positive and constructive comments and suggestions on our manuscript. We have tried to take these comments and suggestions seriously and addressed each of them in all details. We have replied to the comments point by point and all changes have been included in the MS-modified version attached as a supplement.

The scope of the study and the main result are somehow clear, but the writing, however, is rather complicated and in parts lengthy...I strongly suggest a thorough rewriting of the paper to achieve a more logical organization of the discussion, the removal of repetitions and the synthesis of lengthy parts such as the introduction, the presentation

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of the studied area and the presentation of the data.

Response: Thank you for your suggestions, we have rewritten our manuscript (removed repetitions, restructured the introduction, condensed the presentation of the studied area and Results) to achieve a more logical organization of our paper. The details have been showed in the MS-modified version.

More critical is the lack of rigor of the discussion. Many shortcuts and omissions renders the discussion very difficult to follow, and sometimes borderline when it comes to attribute a process to the observed data...the authors have to discuss more deeply their ideas. Another key problem is that the article fails to attract attention on the importance of such work. Emphasis should be put on the importance of such contribution, not only in the introduction but also through the discussion itself: why does it matter? what's next? what are the perspectives? what broader applicability? etc. Without such perspective, it is hard to evaluate whether the study is of true interest or not for the topic.

Response: Thank you for your suggestion, we have followed your suggestions to reorganize the discussion in the MS-modified version. And the English writing of the following manuscript was carefully edited by a native English speaker (Dr. David Warrington).

Many repetitions can be avoided thorough the entire manuscript: rephrasing the same idea is not useful for the comprehension; it just adds length to the manuscript.

Response: Thank you for your suggestion, we have deleted the repeated sentences through the entire manuscript in our MS-modified version, which has been attached as a supplement.

Please also note the supplement to this comment: http://www.solid-earth-discuss.net/se-2016-109/se-2016-109-AC2-supplement.pdf Interactive comment on Solid Earth Discuss., doi:10.5194/se-2016-109, 2016.