

March 25, 2024

Differentiating between crop and soil effects on soil moisture dynamics

By Scholz et al.

Replies to comments from the editor

We thank the editor for the review and suggestions on our latest version of the manuscript.

Line 167-175: This part is still difficult to understand. As it stands it is not completely clear, how was the average soil particle distribution *calculated*? How did the pooling into different yield potentials affect the texture estimation? I believe you may be referring to spatial averaging of the particle distribution curves, but separately for patches with high and low yield potential and specific texture class? It would help me to have the word „spatial averaging“ stated specifically.

Response: Thank you for your suggestion, we worked on the wording of the paragraph.

Lines 192-204: In the response to report #1 you mention that small jumps do not affect the PCA results according to your experience. Can you add this comment also to the ms?

Response: We added the comment to the manuscript.

Lines 191 and 205: Heading number 2.4 appears twice, please add header 2.5.

Response: Thank you for this observation. We corrected it.

Line 282: „certain regional pattern“ suggests a larger scale. Maybe refer to „spatial pattern“.

Response: Thank you for this suggestion which we have incorporated.

Line 283: „random location“ maybe better formulated „distributed randomly“ or similar?

Response: Thank you, this was also incorporated as suggested by the editor.

Lines 351-353: This observation appears a bit uncommented now. Can you link it better to the remainder of the discussion?

Response: Yes, we improved the link of the reference with the previous text to highlight its contrasting outcome compared to our study.

Line 379: „improved soil moisture“ Both higher and lower soil moisture can be an improvement, depending on the situation. Can you specify?

This was clarified.

Line 386-388: This sentence needs revising as the „soil-vegetation interactions“ and „such as soil organic matter []“ suggest that soil organic matter is an interaction. That is not the case. Do you mean „soil organic content increase from enhanced input of ...“ ?

We worked on the wording.