

Response to Editor

1- L39: Please cite direct sources for the soil formation rates.

Answer: The two following references "Stockmann et al. (2014)" and "Zhang et al. (2024)" were added in line 45.

Stockmann, U., Minasny, B. and McBratney, A. B.: How fast does soil grow? *Geoderma* 216, 48–61. <http://dx.doi.org/10.1016/j.geoderma.2013.10.007>, 2014.

Zhang, Y., Hartemink, A. E., Vanwalleghe, T., Bonfatti, B. R. and Moen, S.: Climate and land use changes explain variation in the A horizon and soil thickness in the United States. *Communications Earth & Environment* 5, 129. <https://doi.org/10.1038/s43247-024-01299-6>, 2024.

2- Table 10: In your response to referee #1, the corrected standard deviation values for maize yield are rounded, while the treatment means are not. Please standardise—I suggest removing the decimal case.

Answer: Suggestion adopted. Corrections were made in the table 10.

3- Please also correct the maize yield standard deviation values in the text (lines 422-429).

Answer: Corrections made in lines 435-439 and even in other parts of the manuscript.