

Hydrol. Earth Syst. Sci. Discuss., referee comment RC1
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Comment on hess-2021-399

Anonymous Referee #1

Referee comment on "Rill Erosion on Slope of Spoil tips: experimental study of runoff scouring erosion in multiple times" by Yongcai Lou et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-399-RC1>, 2021

This paper presents field experiments to quantify erosion processes over spoil tips in the Loess Plateau of China. The authors analysed the experimental data and provided insights into key factors controlling the erosion processes. The paper is well structured and the presentation is mostly clear. However, I have the following specific comments on the manuscript.

Ln 32. Replace "vegetation-covered" with "vegetation-cover"

Ln 33, Delete "erosion" before intensity

Ln 46, Replace "which will result in" with "resulting in"

Ln 70, More accurately than what?

Ln 80, Replace "multiple times rainfall" with "multiple rainfall events"

Ln 115, Replace "paper" with "study"

Ln 137, Replace "sheeting" with "sheets"

Ln 156, Do you mean flow hydrodynamic parameters are important for describing runoff and sediment production characteristics?

Ln 231-233, These exponents do not necessarily tell us the relative importance of the inflow rate, slope and scouring times as these variables have different dimensions and magnitudes.

Ln 246-247, Are these your results or results of Peng et al., 2014 and Niu et al., 2020?

Ln 319, Replace "Eq. (10-12) shows" with "Eqs. (10-12) show"

Ln 321-323, Not sure these interpretations are correct and please see comment above on the same issue.

Ln 333, Delete "function" before relationship

Ln 335, Delete "function" before relationship

Ln 349-351, It is not clear what this means. What is a significant variable rule?

Ln 355-358, Poor English and please reword

Ln 385, I suggest delete the statement as it does not add any useful information.

Ln 412-413, These statements may be correct, but the authors should consider the dimension and magnitude of these variables when comparing them.

Ln 485, Replace "(An et al., 2014)" with An et al., (2014)