

Interactive comment on “The impact of soil preparation on the soil erosion rates under laboratory conditions” by A. Khaledi Darvishan et al.

Anonymous Referee #3

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Authors discuss the differences of induced soil erosion on disturbed substrates and in situ soils. The aim is to show how much runoff and erosion is influenced by soil disturbance. It is an interesting study, which is in the scope of the journal. However, I have some comments, which make moderate revisions necessary.

COMMENTS:

Language: There are some mistakes and linguistic deficiencies throughout the manuscript. I also agree with anonymous referee 1 that it is mandatory to be stable in using terminologies .

Abstract: The method (rainfall simulation) is missing in abstract

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Manuscript: - In General: I consider to use the word “soil” only for the unaffected grown soils and “disturbed prepared substrate” for the prepared plots.

- Introduction and Conclusion: I consider to more clearly emphasize the disadvantages of laboratory plots in comparison to in situ plots.

- Page 887, Line 13-15 “Nowadays, the use of laboratory methods using rainfall simulators are considered more and more, because of ability to control the intensity and duration of rainfall which leads to increase the accuracy of data”: This cannot be the reason why laboratory rainfall simulators are considered more and more. Also with field rainfall simulators it is possible to control intensity and duration of rainfall accurately. I consider deleting this sentence, because the statement is wrong.

- Page 889, Line 22-25: It is strongly required to describe how the median drop diameter and the kinetic energy of simulated rainfall were determined! Moreover, the used rainfall simulator should be presented more detailed.

- Page 888, Line 25 “The top 20 cm layer of the soil (. . .): Why this part of the sentence needs references? Please delete references because they are superfluous. - I consider merging results and discussion to one chapter. Moreover, the results should be described a little bit more detailed.

- Page 892, Lines 5-14: Please consider that the presence of stones at the soil surface not always decrease soil erosion. On the contrary, if stones are embedded in crusted surfaces runoff and thus erosion is increased.

Interactive comment on Solid Earth Discuss., 7, 885, 2015.