

Interactive comment on “Preferential water flow through decayed root channels enhances soil water infiltration: Evaluation in distinct vegetation types under semi-arid conditions” by Gao-Lin Wu et al.

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Received and published: 19 October 2020

Revealing the soil water infiltration semi-arid areas from the aspect of alive and decayed root could better understand the hydrological processes where dried soil layers have a considerable effect on water circulation in soil-plant-atmosphere continuum. Taking the three main types of the vegetation as case study, this manuscript analyzed the initial and steady infiltration and their relationship with the geometry of root path. The experiments were well designed and data was reasonably interpreted. This issue could attract the readers in the scope of this journal.

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The specific comments and suggestions are listed as follows: Line 30: Please delete “–when the plants decompose after death–” Line 33-34: Please delete “using data from a previous study” Line 35: Please use “allowed us” instead of “was used” Line 33-34: Please delete “Regarding root geometry” Line 40: Please delete “and” Line 42: Please use “information” instead of “knowledge base” Line 58: Please use “occupies” instead of “represents” Line 75: Please delete “and” Line 81-82: Please delete “–” Line 93-95: What is the goal? Line 100-101: The range of the altitude is for experimental site or for Ningxia region? Line 103: total rainfall depth or precipitation? Line 118: Could you present the reason for the plant death? Line 130-132: Please make this sentence clear. Line 133: Please move Fig. 2 to the result section and give a clear description. Line 169-171: Please check this descriptions based on the Table 1. Line 13: Please add the note of the letters. Line 191: Please add the note of the fitted line, e.g., Y1 for decayed root, Y2 for alive root? Line 226: Could you present a group of real scenario photos taken after infiltration? Line 244: Please change “or” to “and”.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2020-266>, 2020.

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