Hydrology and Earth System Sciences Discussions

Interactive
Comment

Interactive comment on "Comparison of three measurement methods of saturated hydraulic condutivity" *by* C. Fallico et al.

C. Fallico et al.

Received and published: 17 July 2006

Reply to Referee #2

1) The news that are found in our paper, in our opinion, are already contained in the reply to Referee 3; consequently we ask to read kindly the reply to the General Comment n. 1 of the aforementioned Referee. In any case we believe of interest the aspects contained in the above mentioned reply, because they show differences as regards what is referred in other analogous studies, and so they furnish further information on the matter.

2) In regard to the lack of morphological and mineralogical description of the studied soil, we point out that the Turbolo basin was widely studied regarding these aspects. Herein after we report some references, most of which are unfortunately in Italian lan-

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guage: - Terranova O., 1989. Descrizione geomorfologica del bacino attrezzato del Torrente turbolo (Calabria). Ass. It. Idron., Quaderni di Idronomia, n. 9. - Taddei A., 1991. Studio geologico del bacino idrografico del Torrente Turbolo (bacino del Crati, Calabria). Rapp. Int. CNR-IRPI (CS), n. 339. - Taddei A., 1992. Suddivisione dei litotipi affioranti nel bacino del Torrente Turbolo (bacino del Crati, Calabria) in classi a diversa capacità di infiltrazione. Rapp. Int. CNR-IRPI (CS), n. 352. - University of Calabria - Department of Soil Conservation, 2000 Integrated Management of Water Resources at Basin Scale - The Turbolo Basin, INTERREG Project.

We try to summarize briefly: The experimental area where the investigation was carried out is situated in the Turbolo basin, tributary of Crati basin, and it has a surface of 29 km2 (max altitude on the sea level = 1015 m ; min altitude on the sea level = 79 m; length of main water course = 11 km). From the geologic point of view, the basin is constituted, on the west-side, from the metamorphic rocks, highly fractured, while, in the central part and on the east-side, it is constituted from sedimentary rocks (clay, sand, conglomerates and alluvial deposits). The experimental field is situated on the alluvial deposits and has a surface regular enough, with a slope of about 6%, in the North - South direction; the experimental field is located near the confluence of the Turbolo river into Crati river. The shallower aquifer is defined in the lower part from grey-azure clay and has the free surface to about 8.30 m of depth from the soil surface. Nevertheless we don't believe well timed to insert this description in the text.

3) Sorry for the spelling mistakes; they will be corrected.

4) Sorry, also, for the too many large sentences, but we fear that reducing them the text can result less evident and some information can disappear. Nevertheless we tried to find and to reduce the too many large sentences (5 - 6 lines): - P. 993, Lines 13 - 18; - P. 994, Lines 6 - 10; - P. 994, Lines 24 - 28; - P. 995, Lines 19 - 25; - P. 996, Lines 1 - 6; - P. 997, Lines 17 - 22; - P. 1000, Lines 11 - 16; - P. 1001, Lines 3 - 9; - P. 1001, Lines 17 - 23; - P. 1002, Lines 9 - 15; - P. 1002, Line 28 - P. 1003, Line 7; - P. 1003, Lines 15 - 22; - P. 1005, Lines 20 - 25; - P. 1006, Lines 3 - 9; - P. 1006, Lines 19 - 26.

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5) Indeed in the conclusion section the sentence included between Line 23 of Page 1004 and Line 3 of Page 1005 may be avoided, so it will be removed from the text.

6) The word "bio-pores", used in Table 1, is a mistake; so it will be replaced with "macropores, worm holes".

7) As consequence of the remarks of the Referee 3, the dimensions of some tables are enlarged; so, likely, it is well timed before to look over the new version of the corrected text and after to decide.

8) The symbols used in the figures are those used habitually in the fractile diagrams, that is: u = standard normal form of the variable; ks = saturated hydraulic conductivity; P = cumulative probability.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 3, 987, 2006.

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