

## ***Interactive comment on “Modeling relationship between runoff and soil properties in dry-farming lands, NW Iran” by A. R. Vaezi et al.***

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Response to comments of Referee 2: 1- Text form from the introduction to the discussion was wholly revised. So we hope the value of runoff experiments would be well showed. 2- The title of our paper was revised on the basis of "empirical regression equation" and this work was focused on studying of soil properties controlling infiltration and runoff and developing an empirical regression equation. 3- Introduction was revised and the importance of the runoff generation and factors controlling it were well explained in the introduction. The objectives obviously presented at last of introduction. 4- Figure 2 was presented to show the runoff plots installed in dry-farming land, and figure 3 was presented to show runoff-collecting installations at the lower

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part of the runoff plot. 5- Effects of soil properties on the sealing and crusting and runoff generation were stated in discussion. 6- Some soil properties consist of soil particles, lime, organic matter, potassium and gravel do not exchange through plowing but the aggregate stability and infiltration rate may change by plowing. Soil sampling before and after plowing from plots were clearly noted in material and methods. 7- We could only present the relationship of the runoff with soil properties, and rainfall characteristics, separately. There is no possible to present a model based on both soil properties and rainfall properties because  $R^2$  of this model will be very low (0.51 probability). Thank you very much for your comments.

Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/7/C2001/2010/hessd-7-C2001-2010-supplement.pdf>

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 2577, 2010.

C2002

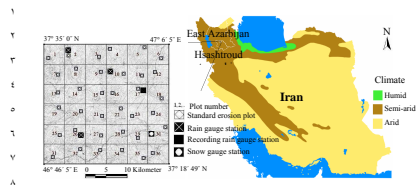


Fig. 1. Location of the study area, rainfall gauge stations and unit plots used for measuring surface runoff.

Fig. 1.