

Interactive comment on “Spatial variability of soil properties and soil erodibility in the Alqueva dam watershed, Portugal” by V. Ferreira et al.

Anonymous Referee #1

Received and published: 14 February 2015

Dear author,

The paper is great; the main point of your paper is to contribute to understanding the variability of soil properties and soil erodibility for different locations (spatial analysis) in a studied area and under different type of land use. I just wish to suggest some minor technical corrections.

See some comments:

Line 92. delete the word supply.

Line 124. N:P:K should be NPK, or you can leave as it is but you should put between parentheses a value that referee to the amount of each fertilizers type.

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Line 137. remove rocks or limestone concretions, it will be better if you changed to be just (remove rocks and gravels).

Line 143. In this part of soil erodibility factor you should refer anywhere in the text to the equation 1.

Line 157. In this part of statistical and geostatistical analysis you should refer anywhere in the text to the equation 2.

Line 194. (Equation 4) it should be (Equation 3).

Line 217. according to the Table 1 the value 86.9% should be 70.2%.

Line 245. values should be value.

Line 249, 250 and 251. The electric conductivity unit dS/cm it should be dS/m (exactly as you presented in Table 1), or you can use other units as mmhos/cm = mS/cm.

Line 259, 260, and 261. In this paragraph there is a misunderstanding were the lower pH should be for no tillage and this also according to Chatterjee & Lal (2009), so may be in this case the different land uses is sufficient to justify the changes in pH values without speaking about the tillage.

Line 285. The value 0.66 should be 0.64 (as you presented in table 1).

Line 304. Instead on for N in Montado or VFS it should be for total nitrogen (N) in Montado or very fine sand (VFS).

Line 310. If you did the correction in line 304 so then you should delete very fine sand and the parentheses.

Line 322. (Equation 2) it should be (Equation 1).

Line 551. The legend of map of VFS should writing with no bold font as you did in the other maps. Also the font of the legend of erodibility map is a little pit small in comparison to the other legends fonts.

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Line 559. In this figure it will be clearer if you put instead of plus (+) a (bold points) to refer the different samples for different land uses (less confusion with the negative scale of axis 1 and 2). Also you it will be clearer if you put a small legend in the figure including the letters sampling meaning (M: Montado grassland, L: Lucerne cultivation, and O: Olive tree orchard).

Line 570. In this figure there are different graphs to represent the hierarchical clusters, the words clusters 1, 2 and 3 not clear in the figure so you can put it above each corresponding graph.

Congratulations for this contribution to Solid Earth (SE).

Sincerely,

Sameh Kotb

Interactive comment on Solid Earth Discuss., 7, 301, 2015.

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