Solid Earth Discuss.,
doi:10.5194/se-2016-138-AC1, 2016

Solid Earth Discussions

Interactive comment on "Identification of Regional Soil Quality Factors and Indicators: An Alluvial Plain From Central Anatolia" *by* Cevdet Şeker et al.

Cevdet Şeker et al.

ersoy@selcuk.edu.tr

Received and published: 17 November 2016

Changes have been made at the request of the referee.

19-24 Field capacity (FC33), bulk density (Pb), aggregate stability (AS) and permanent wilting point (WP) from physical soil properties, and electrical conductivity (EC), Mn, total nitrogen (TN), available phosphorus (AP), pH and NO3-N from chemical soil properties, and urease enzyme activity (UA), root health value (RHV), organic carbon (OC), respiration (R) and potentially mineralized nitrogen (PMN) from biological properties were chosen as a MDS from total data sets to assessment of soil quality by principle component (PCA), correlation analysis and expert opinion.

24 According the results, chosen properties were found as the most sensitive indicators of soil quality and they can be used as indicators for evaluating and monitoring soil

quality at a regional scale.

38 On the other hand, the amount of agricultural land is already at a maximum level in most countries (Eswaran et al., 2001)

158 The second was kept in the cooler in +4 0C for biological analysis.

179 pH measurement was made according to the CSHA manual procedure, so 1:1 soil : water ratio was used.

188 The solution was extracted using extractable Ca, Mg, Na and K, 1 N ammonium acetate solution and available Fe, Cu, Mn and Zn were determined with atomic absorption spectrophotometry through Diethylenetriaminepentaacetic acid (DTPA) extraction (Kacar, 2009).

19-24 Field capacity (FC33), bulk density (Pb), aggregate stability (AS) and permanent wilting point (WP) from physical soil properties, and electrical conductivity (EC), Mn, total nitrogen (TN), available phosphorus (AP), pH and NO3-N from chemical soil properties, and urease enzyme activity (UA), root health value (RHV), organic carbon (OC), respiration (R) and potentially mineralized nitrogen (PMN) from biological properties were chosen as a MDS from total data sets to assessment of soil quality by principle component (PCA), correlation analysis and expert opinion.

24. According the results, chosen properties were found as the most sensitive indicators of soil quality and they can be used as indicators for evaluating and monitoring soil quality at a regional scale.

38 On the other hand, the amount of agricultural land is already at a maximum level in most countries (Eswaran et al., 2001)

158. The second was kept in the cooler in +4 0C for biological analysis.

179. pH measurement was made according to the CSHA manual procedure, so 1:1 soil : water ratio was used.

188. The solution was extracted using extractable Ca, Mg, Na and K, 1 N ammonium acetate solution and available Fe, Cu, Mn and Zn were determined with atomic absorption spectrophotometry through Diethylenetriaminepentaacetic acid (DTPA) extraction (Kacar, 2009)

The reference list was checked and wrong references were corrected to the requirements of the journal.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/se-2016-138/se-2016-138-AC1-supplement.pdf

---

Interactive comment on Solid Earth Discuss., doi:10.5194/se-2016-138, 2016.