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Interactive comment on "Improvements in aggregate stability of recently deposited sediments supplemented with tea waste and farmyard manure" *by* B. Turgut and B. Köse

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General comment This article studies the effect of the addition of different rates of two organic amendments (farmyard manure, FYM and tea waste, TW) on fine sediments from a water reservoir; mixtures of sediment and both organic amendments are incubated in greenhouse conditions to analyze the influence of these residues on sediment aggregate stability. The hypothesis and experimental design are appropriate.

Specific details

Page 2038 Line 8

"The AS was determined at different times after adding organic matter" What organic matter means here? The farmyard manure (FYM) and tea waste (TW)? Be careful, because you don't add FYM and TW characteristics!

Page 2038 Lines 10 and 11 AS or Aggregate stability?

Page 2038 Line 15 clearly. . . means significantly?

Page 2038 Line 16 noticeably. . . means significantly?

Page 2039 Line 10 "In respect to these remarks, the addition of organic matter has been used in the restoration of degraded soils for a long time" (Some quotation is required)

Page 2040. Line 14 ". . .no information is available on the effect of tea waste on aggregate stability." (A quick review of the literature shows that this is not true)

Page 2039 Line 5 and Page 2040. Line 9. Avoid issues that may seem contradictory: Ie: "Organic matter is the most important component of soil aggregate stability" (Page 2039 Line 5) . . ."and inorganic soil constituents such as Fe and/or Al oxides and hydroxides to cause aggregation" Page 2040. Line 9

Comments related to the introduction: Both the inorganic (ie clay) and organic soil components influence aggregate formation and stabilization. The relationship between AS and soil has been widely studied since "historical" times, e.g. Harris et al., 1964; Insam and Domsch, 1988; Lorenzo and Badía, 2002; Martí et al., 2001; Singer, 1994; Tisdall and Oades, 1982; Oades, 1993; Rengasamy et al., 1984; etc etc. . .

Page 2040. Line 12 After a somewhat ambiguous introduction about what is a sediment (Lines 1 to 11), the authors concludes that "sediments are a good example for degraded soils" (but I'm not sure that's very appropiate)

Different sediments can be the soil parent material, as well as the soil can be "degraded" by physical and chemical processes.

Page 2040. Line 12 “the aggregate stability would be influenced by the application dozes” doses?

Page 2041. Line 3 “Two different types of organic material were used in the study.” Please, add organic materials characteristics (similarly to table 1 for sediment)

Page 2041. Line 8 “The sediments obtained from reservoir site. . .” The authors do not explain why are using sediments sampled in a bottom valley from a water reservoir. Is the dump clogged and the bottom valley will be cultivated?

Page 2041. Line 23 Specify the chapter where is the method used, ie: Wet combustion method (Sparks et al., 1996), vs. SOM

Page 2041. Line 27: Do not match the years “The pH values of the sediments were measured in the 1 : 2.5 soil-water suspensions (Conklin, 2014).” Conklin, A. R.: Introduction to Soil Chemistry: Analysis and Instrumentation, Wiley, Hoboken NJ, USA, 2005.

Page 2042. 3 Results and discussion The discussion should be more elaborate

Table 1. Add sediment carbonates content (with a soil pH of 8.6. . . should have it!!)

Figures You should review the format of the graphics (axes, decimals, statistics letters) and clarify the figure captions

Terms Used throughout the text to be reviewed: dozes? Doses, amounts, rates. . . Organic matter supplement? amendment. . . Application? Input, contribution, amount, rates. . . sediment deposited? Sediment, Bottom valley sediment. . .

Interactive comment on Solid Earth Discuss., 7, 2037, 2015.