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Interactive comment on "Comparison of wheat and safflower cultivation areas in terms of total carbon and some soil properties under semi-arid climate conditions" *by* B. Turgut

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Thank you very much for your kind comments on our manuscript. The following are our reponses to your comments:

The literature indicated that safflower's both above ground vegetative sections and root system was larger in biomass than those of wheat. Therefore its residue rate and thus its contribution to soil organic matter is higher. The results section was set up with this in mind.

Figures and tables will be rearranged according to your suggestion.

New literature will be added according to your suggestion.

Comparison of both cultivation areas indicated significant differences between them in terms of texture classes. However, in our opinion the observed differences are mainly resulted from the differences in plant types cultivated on these sites. Safflower planted area was expected to have lower levels of organic matter because of higher sand content and accompanying better aeration and rapid mineralization, but organic matter content was found to be higher in safflower planted areas. Therefore, in our opinion, high organic matter content in safflower planted area is due to richness of both above- and below-ground sections of safflower in organic matter as suggested by the literature. In addition, total C was expected to be higher in safflower planted area due to higher organic matter content, but our findings indicate that total C was higher in wheat planted area which is in accordance with the literature. Furthermore, aggregate stability was expected to be higher in wheat planted area where clay content was higher but it was higher in safflower planted area and the reasons for this were discussed with the support of related literature.

Interactive comment on Solid Earth Discuss., 7, 1007, 2015.