

## ***Interactive comment on “Effects of golf course management on subsurface soil properties in Iowa” by Matthew T. Streeter and Keith E. Schilling***

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General comments: This short communication highlights the variability of certain soil characteristics at golf course sites, trying to attribute it either to anthropogenic activity or the natural soil development. Furthermore, the influence of the sustainability of the soil resource should be assessed. Firstly, most of the reported observations seem to be quite predictable, e.g. the higher amount of sand or available nitrogen in the upper layer. Secondly, the discussion and conclusion is only summing up the results without trying to deduce a possible ecological relevance of the data. Furthermore, I would also recommend a comparison more within the individual golf courses or between fairways, roughs and tees, maybe even using relations of results instead of absolute values.

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Line to line comments L40: effects instead of affects? L 75ff: scientific names should be mentioned as well L95: TC is measured, but without determining the carbonate content. If this measurement would have been done, a further, rather important parameter would have been available and the Walkley Black – determination (which is, by the way, not state of the art any more) would have been unnecessary L98. If nitrate is determined from dried samples, the value does not correspond to the situation in situ any longer, as the drying process significantly influences the nitrate content L122: the weak correlation to TC is logical, as TC also comprises the anorganic carbon from carbonates. L150:ff Of course the golf course use promotes changes of sand content! But what are the implications? L158ff: This is why sand is added at golf courses! L183: For C/N-ratios, do not use TC but Corg, as the N is not linked to inorganic carbon at all! L 210: mg/kg soil? L367, Table 3: what does e.g. 53+/-42 mean (Sand % for Central 18, 20cm)? If it indicates a value of 53 with a variability of plus/minus 42, this is not very informative! Another example would be SOM at Central 18, 100cm depth: 1.65 +/-1.83. Try at least to adopt the layout or consider another way of displaying the data. For East9, the font size of the first two depth classes is not consistent with the table L 379, Table 4: see comments regarding layout of results for table 3

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