Interactive comment on "Tillage-induced short-term soil organic matter turnover and respiration" *by* S. R. Fiedler et al.

S. R. Fiedler et al.

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Dear Prof. Sleutel, we added some minor improvements to the manuscript.

Line 19/20 âĂŽBefore tillage, the Py-FIMS mass spectra revealed distinct differences in relative ion intensities of undisturbed soil compared to BD. . .' -> Changed to: 'Before tillage, the Py-FIMS mass spectra revealed distinct differences in relative ion intensities of MF and CL compared to BD' 73-75 'Furthermore, Py-FIMS of bulk SOM revealed alterations in laboratory incubation experiments and linked these to respiration and enzyme activities' -> 'Furthermore, Py-FIMS of bulk SOM revealed alterations in laboratory incubation experiments and allowed to link these to respiration and enzyme activities'

222 'PLSR models were built by using the R package "autopls" version 1.3' -> 'PLSR

models were built using function autopls of the R package "autopls" version 1.3'

229-230 'the 500 "best" models were extracted and, finally, the mass signals which were utilised more than 50 times in the latter models were chosen' -> 'the 500 "best" models were obtained and, finally, the mass signals which were utilised more than 50 times in the latter models were extracted'

474 'which also hints to a coupling' -> 'which also hints at a coupling'

482-484 'it is likely that increased amounts of sterols as they are typically found in biogas digestates (Leinweber, 2015, unpublished Py-FIMS data) delay the decomposition' -> 'increased amounts of sterols as they are typically found in biogas digestates (Leinweber, 2015, unpublished Py-FIMS data) likely delay the decomposition'

493-494 'CO2 efflux as an possible indicator for carbon use efficiency in terms of improved microbial N-availability decreased' -> 'lignins, ammonia and ammonium were discriminated as explanatory variables for cumulated CO2 efflux by PLSR'

496 'significant correlations among data sets from these methods' -> 'significant correlation exist among data sets from these methods'

Please also note the supplement to this comment:
http://www.soil-discuss.net/soil-2015-91/soil-2015-91-AC2-supplement.zip