

## ***Interactive comment on “Litter contribution to soil organic carbon in the agriculture abandons processes” by A. Novara et al.***

**Anonymous Referee #2**

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Comments to SED 7, 595-616 (2015) “Litter contribution to soil organic carbon in the agriculture abandons processes” by Novara et al. Although the paper addresses relevant scientific issues within the aims of SE, at the moment their various sections are not well linked among them. Indeed, Introduction seems an assemblage of generic sentences which do not focus on precise topics. Even research objectives must be formulated less vaguely. However, the most problematic section is M&M and the reason will be explained later, while the most difficult section to understand is “Results”, also for the “cryptic” English. Finally, Discussion often results unrelated to reported results and lacks of Conclusions The adopted experimental design is rather complex but some crucial points need to be clarified by Authors. For example: 1) soil characterization (soil pH value is too low for high content in limestone; based on reported granulometry, the textural class is sandy-clay-loam; 2) the earthworm effect is only presumed, since no

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earthworm biomass has been measured and followed during the experiment; 3) litter respiration (the described measurement procedure is not persuasive under many aspects: the used NaOH volume is not enough to trap all the CO<sub>2</sub> declared being produced during 1-week incubation by litters; on the other hand, Authors seem not having replaced NaOH solution by fresh one before each trapping; the carbonate deriving by CO<sub>2</sub> trapping was not apparently precipitated before titration of residual NaOH; methyl-orange indicator works at acidic pH ranges, which is not the case here); 4) there is no indication for calculating MRT, for defining C<sub>extr</sub> and for determining it (Table 2); 5) procedures for ADF, ADL, NDF determinations are not reported, and even their definitions, rather equivocal within literature, are lacking; moreover, based on performed analyses, particularly cellulose content, the quality of the 4 litters, so different for the duration of abandons, did not change, what is rather unexpected; 6) statistics is quite poor and significant differences among various experimental factors are not unequivocally deducible. In conclusion, the deep reviewing of the manuscript is not possible, and even unrecommended, without properly answering the above questions.

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Interactive comment on Solid Earth Discuss., 7, 595, 2015.