

Interactive comment on “Carbon losses from pyrolysed and original wood in a forest soil under natural and increased N deposition” by B. Maestrini et al.

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Received and published: 20 January 2014

The manuscript reports the results for carbon losses in the form of CO₂ and DOC from pyrogenic organic matter (PyOM) and pine wood under ambient and increased N deposition in a forest soil under field conditions. ¹³C enriched pine wood and PyOM were used in the experiment that allowed the measurement of C losses and priming effect in the experiments. It is a well conducted field experiment study which has provided some novel results that are worth publishing in the journal. I have reviewed the manuscript earlier so not much to add except for a few minor editorial comments as listed below: P2 L8-9: Insert a ‘comma’ before ‘respectively at both places. P2l20-25: The justi-

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fication could be improved and expanded a little more considering the push for soil application of biochar or PyOM for long-term carbon storage etc. P4 L21, 23 and 24: in the units ‘g C kg⁻¹ PyOM-C’ insert a space between ‘C’ and ‘kg⁻¹’. P4L29: No need for a new paragraph here. P6L3: Insert a space between ‘N’ and ‘ha⁻¹’. P6L16: Revise as ‘The soil at the experimental site is...’. P6L17: Insert a space between ‘C’ and ‘ha⁻¹’. P6L18: Replace ‘we tested’ with ‘consisting of’. P7L8-10: Revise the sentence for clarity. P7L23: Check the units ‘g C m’ for PyOM and wood. P8L26: Insert a space before ‘Waltham’. P13L16-18: Write the units correctly for wood-C, ‘0.077±0.008 and 0.081±0.008% d⁻¹ of the wood-C added...’. P13L22: Not clear whether you are describing the mineralization rate of PyOM or wood. P13L22-23: Is it positive or negative priming effect, please specify? P14L2-3: Insert ‘the’ before ‘initial’ at both places. P14L7: Change ‘treatment’ to ‘treatments’. P14L9: Change to ‘...with the organic treatment and different...’. P14L24-25: Use the full units for the decomposition rate in the sentence. P15L26: I suggest you change thereference to Fang et al. 2011 to Fang et al. 2014 (Fang, Y., Singh, B., Singh, B.P. and Krull, E. (2014). Biochar carbon stability in four contrasting soils. *European Journal of Soil Science*, 65, 60–71. doi: 10.1111/ejss.12094). P16L2: Change ‘date’ to ‘dates’. P16L11-12: Insert ‘with’ before ‘22-26%’. P16L17: Replace ‘in field conditions’ with ‘under field conditions’. P17L16: Insert ‘the’ before ‘initially. P17L28: Replace ‘more’ with ‘well’. P19L7-8: It is not clear which experiment you are referring to here, I assume your’s, please clarify this. P19L8-10: N adsorption or fixation is applicable to ‘NH₄’ form of nitrogen only. P19L23: Put ‘Lehmann et al, 2011 in parentheses’. P19L24: Insert ‘the’ before ‘findings’. P20L15-18: I suggest you make two sentences for the text for clarity. Table 1: Normalise sand, silt and clay 5 values to a total of 100.

Interactive comment on Biogeosciences Discuss., 11, 1, 2014.

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