



# Corrigendum: Tillage System and Crop Sequence Affect Soil Disease Suppressiveness and Carbon Status in Boreal Climate

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## A Corrigendum on

### Tillage System and Crop Sequence Affect Soil Disease Suppressiveness and Carbon Status in Boreal Climate

by Palojärvi, A., Kellock, M., Parikka, P., Jauhiainen, L., and Alakukku, L. (2020). *Front. Microbiol.* 11:534786. doi: 10.3389/fmicb.2020.534786

In the original article, there was a mistake in **Table 4** as published. Inadvertently, a misordered data table was used for calculating SOC (Soil Organic Carbon) pool results for **Table 4**. The numerical values were slightly erroneous and some of the letters referring to statistically significant differences in each comparison of SOC pools were incorrect. The corrected **Table 4** is shown below.

Consequently, a correction has been made to Results, sub-section ‘Soil Organic Carbon and Microbial Biomass Carbon in the Soil Profile.’ The corrected third paragraph is shown below.

The total amounts of SOC and  $C_{mic}$  on the topsoil layer were calculated based on both fixed 0–20 cm depth and on the equivalent soil mass method (equivalent mineral soil mass of 200 kg  $m^{-2}$ ,  $\approx 15$  cm depth; Wendt and Hauser, 2013; Singh et al., 2015) which takes soil bulk density into account (**Table 4**). Plowed treatment contained statistically significantly less SOC (6.37 kg C  $m^{-2}$ ) on 20 cm depth compared to the reduced tillage and no-till treatments (6.76 and 7.08 kg C  $m^{-2}$ ;  $p < 0.01$ , respectively). The difference turned to non-significant with the equivalent soil mass results between plow and reduced tillage (5.24, 5.29, and 5.54 kg C  $m^{-2}$  on plow, reduced tillage and no-till treatments, respectively). Crop rotation did not change SOC in tillage treatments (**Table 4**). Mean  $C_{mic}$  of the treatment combinations ranged from 65.3 and 77.0 g  $C_{mic} m^{-2}$  in the soil layer equivalent to 200 kg  $m^{-2}$  (**Table 4**), which is about 1.1–1.4% of the total soil C stock.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

**TABLE 4** | Test results of the fixed main effects in the generalized linear mixed models for soil carbon pools in soil.

Management	Soil carbon pools*			
	SOC <sub>20 cm</sub>	SOC <sub>eq</sub>	Cmic <sub>20 cm</sub>	Cmic <sub>eq</sub>
<b>Crop sequence</b>				
Monoculture	6.69	5.30	86.4	69.6
Crop rotation	6.79	5.42	88.6	72.4
<b>Tillage system</b>				
Plow	6.37 a	5.24 a	80.0 a	65.9 a
Reduced tillage	6.76 b	5.29 a	88.3 b	71.3 b
No-till	7.08 c	5.54 b	94.2 c	75.7 c

\*Soil Organic Carbon (SOC; kg m<sup>-2</sup>) and Microbial Biomass Carbon (Cmic; g m<sup>-2</sup>) in the soil profile either calculated as carbon content on 20 cm top soil or as equivalent soil mass (eq; 200 kg m<sup>-2</sup>; ≈15 cm depth). The number of observations (n) is 24 for each response variable. <sup>a</sup>The different letters refer to statistically significant differences within each comparison;  $p \leq 0.05$ .

## REFERENCES

- Singh, P., Heikkinen, J., Ketoja, E., Nuutinen, V., Palojärvi, A., Sheehy, J., et al. (2015). Tillage and crop residue management methods had minor effects on the stock and stabilization of topsoil carbon in a 30-year field experiment. *Sci. Total Environ.* 518-519, 337–344. doi: 10.1016/j.scitotenv.2015.03.027
- Wendt, J., and Hauser, S. (2013). An equivalent soil mass procedure for monitoring soil organic carbon in multiple soil layers. *Eur. J. Soil Sci.* 64, 58–65. doi: 10.1111/ejss.12002
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