

Erratum to: Long-term tillage, straw and N rate effects on quantity and quality of organic C and N in a Gray Luvisol soil

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Relationships between soil organic C and N fractions, and between crop residue C input and soil organic C or N fractions

Under above subheading, the first sentence in the second paragraph should read as “The cumulative crop residue C inputs for the ZTS_{Ret0} , ZTS_{Ret0} , ZTS_{Ret50} , ZTS_{Ret100} , CTS_{Rem0} , CTS_{Ret0} , CTS_{Ret50} and CTS_{Ret100} , respectively, were 2.822, 10.491, 26.886, 27.899, 3.198, 11.674, 29.056 and 32.468 Mg C ha⁻¹ for the growing seasons from 1980 to 1998 (19 years),

and 4.379, 17.550, 42.361, 43.949, 5.221, 19.545, 44.960 and 51.891 Mg C ha⁻¹ from 1980 to 2006 (27 years)”.

In Table 8, the correlation coefficients between crop residue C input and soil organic C or N fractions for the period 1980–1998 should read as 0.824*, 0.847**, 0.876**, 0.915**, 0.808*, 0.838*, 0.435^{ns}, 0.778* and 0.590^{ns}, respectively, for TOC, TON, LFOC, LFON, MOM-C, MOM-N, MB-C, C_{min} and N_{min}. The corresponding values for the period 1980–2006 should read as 0.845**, 0.864**, 0.772* and 0.741*, respectively, for TOC, TON, LFOC and LFON.

Table 9 should read as follows:

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Table 9 Linear regressions for relationships between crop residue or crop residue C input from 1980 to 1998 or 2006 growing seasons and soil organic C or N (TOC, TON, LFOC, LFON, MOM-C, MOM-N, MB-C, mineralizable C [C_{\min}] and

mineralizable N [N_{\min}]) stored in soil sampled in autumn 1998 and in spring 2007 at Breton, Alberta, Canada (Gray Luvisol soil, experiment established in autumn, 1979)

| Crop parameter (X) | Soil C or N parameter (Y) | Linear regression ^a ($Y = a + bX$) | R^2 |
|----------------------|---------------------------|---|---------------------|
| 1980–1998 | | | |
| Crop residue C input | TOC | $Y = 24.37 + 0.3429X$ | 0.680** |
| | TON | $Y = 2.472 + 0.0293X$ | 0.718** |
| | LFOC | $Y = 540.8 + 25.569X$ | 0.767** |
| | LFON | $Y = 21.35 + 0.9980X$ | 0.837** |
| | MOM-C | $Y = 249.1 + 11.614X$ | 0.654** |
| | MOM-N | $Y = 8.681 + 0.4592X$ | 0.702** |
| | MB-C | $Y = 948.5 + 2.7398X$ | 0.189 ^{ns} |
| | C_{\min} | $Y = 271.2 + 4.1506X$ | 0.605* |
| | N_{\min} | $Y = 19.74 + 0.4005X$ | 0.348 ^{ns} |
| 1980–2006 | | | |
| Crop residue C input | TOC | $Y = 19.84 + 0.2186X$ | 0.714** |
| | TON | $Y = 2.380 + 0.0162X$ | 0.747** |
| | LFOC | $Y = 684.21 + 20.86X$ | 0.596* |
| | LFON | $Y = 19.61 + 0.8689X$ | 0.550* |

^a Y = Soil organic C or N fraction (TOC and TON as Mg C or N ha^{-1} , and LFOC, LFON, MOM-C, MOM-N, MB-C, C_{\min} and N_{\min} as kg C or N ha^{-1} ; a = Intercept on Y , origin of the line; b = Regression coefficient of Y on X , slope of line; X = Crop residue C input (Mg ha^{-1})

*, ** and ns refer to significant treatment effects in ANOVA at $P \leq 0.05$, $P \leq 0.01$ and not significant, respectively