

Table S3. Fertilization effects on relative peak area (%) of characteristic peaks in organic matter fractions within macroaggregates in physical-chemical combined grouping in FTIR analysis of Mollisols.

Soil depths	Components	Treatments	Alcohol and phenol -OH 3623 cm ⁻¹	Aliphatic -CH- 2920 cm ⁻¹	Aromatic C=C 1620 cm ⁻¹	Carbohydrate C-O 1030 cm ⁻¹	1620/2920
0-10 cm	M(c)POM	NoF	13.27±0.29 a	2.16±0.03 b	5.55±0.06 c	79.02±0.58 a	2.57±0.01 b
		CF	12.09±0.27 b	2.25±0.03 b	5.81±0.06 b	79.85±0.56 a	2.58±0.01 b
		CF+DM	10.85±0.28 c	2.37±0.03 a	6.18±0.07 a	80.60±0.54 a	2.61±0.01 a
		CF+2DM	10.76±0.25 c	2.42±0.04 a	6.34±0.08 a	80.49±0.57 a	2.62±0.02 a
	mM	NoF	10.05±0.28 a	2.11±0.03 c	4.72±0.05 d	83.12±0.59 a	2.24±0.01 c
		CF	9.85±0.26 a	2.17±0.03 bc	4.89±0.04 c	83.09±0.58 a	2.25±0.02 c
		CF+DM	9.31±0.25 a	2.25±0.04 ab	5.19±0.05 b	83.25±0.56 a	2.31±0.02 b
		CF+2DM	8.89±0.22 a	2.32±0.04 a	5.42±0.06 a	83.37±0.52 a	2.34±0.01 a
	M-MOM	NoF	11.97±0.29 a	2.08±0.03 b	4.73±0.06 d	81.22±0.56 a	2.27±0.01 c
		CF	10.81±0.27 b	2.14±0.02 b	4.92±0.06 c	82.13±0.54 a	2.30±0.01 b
		CF+DM	10.48±0.25 b	2.19±0.04 ab	5.14±0.07 b	82.19±0.52 a	2.35±0.02 a
		CF+2DM	10.35±0.22 b	2.28±0.05 a	5.38±0.08 a	81.99±0.48 a	2.36±0.02 a
	mM-POM	NoF	8.37±0.29 a	2.20±0.03 b	4.72±0.06 d	84.71±0.59 a	2.15±0.01 c
		CF	8.22±0.28 a	2.24±0.03 b	4.83±0.05 c	84.71±0.61 a	2.16±0.01 c
		CF+DM	8.05±0.25 a	2.31±0.04 ab	5.07±0.07 b	84.57±0.63 a	2.19±0.01 b
		CF+2DM	7.94±0.24 a	2.39±0.04 a	5.30±0.08 a	84.37±0.65 a	2.22±0.02 a
	mM-MOM	NoF	8.02±0.12 a	2.15±0.06 a	4.06±0.05 d	85.77±0.59 a	1.89±0.02 b
		CF	7.55±0.11 b	2.22±0.07 a	4.25±0.05 c	85.98±0.61 a	1.91±0.01 b
		CF+DM	7.41±0.14 b	2.30±0.08 a	4.48±0.06 b	85.81±0.63 a	1.95±0.01 a
		CF+2DM	7.35±0.15 b	2.39±0.09 a	4.73±0.07 a	85.53±0.60 a	1.98±0.02 a
10-20 cm	M(c)POM	NoF	12.85±0.29 a	2.23±0.03 c	5.62±0.06 c	79.30±0.58 a	2.52±0.01 b
		CF	11.95±0.28 a	2.34±0.03 bc	5.92±0.06 b	79.79±0.56 a	2.53±0.01 b
		CF+DM	10.64±0.26 b	2.44±0.04 ab	6.25±0.07 a	80.67±0.54 a	2.56±0.02 a
		CF+2DM	10.58±0.21 b	2.51±0.04 a	6.44±0.08 a	80.47±0.51 a	2.57±0.02 a
	mM	NoF	9.97±0.27 a	2.19±0.03 c	4.81±0.06 b	83.03±0.59 a	2.20±0.01 b
		CF	9.81±0.25 a	2.25±0.03 bc	4.97±0.07 b	82.97±0.61 a	2.21±0.01 b
		CF+DM	9.25±0.24 a	2.34±0.04 ab	5.27±0.08 a	83.14±0.63 a	2.25±0.01 a
		CF+2DM	9.14±0.28 a	2.41±0.04 a	5.49±0.09 a	82.96±0.64 a	2.28±0.02 a
	M-MOM	NoF	11.86±0.29 a	2.14±0.03 c	4.68±0.06 d	81.32±0.58 a	2.19±0.01 b
		CF	10.72±0.28 b	2.21±0.04 bc	4.89±0.06 c	82.18±0.56 a	2.21±0.01 b
		CF+DM	10.36±0.26 b	2.29±0.05 ab	5.21±0.08 b	82.14±0.52 a	2.28±0.01 a
		CF+2DM	10.25±0.22 b	2.36±0.06 a	5.46±0.09 a	81.93±0.49 a	2.31±0.02 a
	mM-POM	NoF	8.25±0.27 a	2.25±0.03 b	4.71±0.06 d	84.79±0.52 a	2.09±0.01 b
		CF	8.14±0.25 a	2.29±0.03 b	4.84±0.06 c	84.73±0.54 a	2.11±0.01 b
		CF+DM	7.98±0.24 a	2.37±0.04 ab	5.16±0.07 b	84.49±0.57 a	2.18±0.01 a
		CF+2DM	7.85±0.20 a	2.46±0.05 a	5.38±0.08 a	84.31±0.55 a	2.19±0.01 a

20-30 cm	mM-MOM	NoF	7.94±0.28 a	2.21±0.03 d	4.04±0.03 d	85.81±0.61 a	1.83±0.01 b
		CF	7.49±0.26 a	2.28±0.03 bc	4.22±0.04 c	86.01±0.62 a	1.85±0.01 b
		CF+DM	7.35±0.25 a	2.36±0.05 ab	4.56±0.05 b	85.73±0.60 a	1.93±0.02 a
		CF+2DM	7.26±0.24 a	2.47±0.07 a	4.79±0.06 a	85.48±0.59 a	1.94±0.02 a
	M(c)POM	NoF	12.24±0.29 a	2.28±0.03 b	5.52±0.06 d	79.96±0.62 a	2.42±0.02 b
		CF	11.51±0.27 a	2.39±0.04 b	5.85±0.07 c	80.25±0.64 a	2.45±0.02 b
		CF+DM	10.06±0.25 b	2.51±0.04 a	6.29±0.08 b	81.14±0.66 a	2.51±0.03 a
		CF+2DM	9.98±0.22 b	2.59±0.05 a	6.53±0.08 a	80.90±0.67 a	2.52±0.03 a
	mM	NoF	9.91±0.29 a	2.25±0.04 c	4.94±0.06 c	82.90±0.59 a	2.20±0.01 a
		CF	9.74±0.27 a	2.29±0.03 bc	5.07±0.05 c	82.90±0.62 a	2.21±0.01 a
		CF+DM	9.17±0.28 a	2.38±0.03 ab	5.32±0.07 b	83.13±0.61 a	2.24±0.02 a
		CF+2DM	9.08±0.24 a	2.47±0.05 a	5.56±0.06 a	82.89±0.57 a	2.25±0.02 a
	M-MOM	NoF	11.74±0.28 a	2.23±0.03 b	4.89±0.05 d	81.14±0.56 a	2.19±0.01 b
		CF	10.61±0.26 b	2.29±0.03 b	5.06±0.06 c	82.04±0.52 a	2.21±0.01 b
		CF+DM	10.27±0.24 b	2.34±0.04 b	5.28±0.06 b	82.11±0.49 a	2.26±0.01 a
		CF+2DM	10.12±0.22 b	2.46±0.05 a	5.58±0.07 a	81.84±0.51 a	2.27±0.01 a
	mM-POM	NoF	8.19±0.06 a	2.30±0.03 a	4.85±0.06 b	84.66±0.52 a	2.11±0.01 b
		CF	8.07±0.06 ab	2.36±0.03 ab	5.02±0.07 b	84.55±0.54 a	2.13±0.01 b
		CF+DM	7.85±0.05 bc	2.44±0.04 bc	5.27±0.07 a	84.44±0.59 a	2.16±0.02 a
		CF+2DM	7.76±0.05 c	2.53±0.05 c	5.49±0.08 a	84.22±0.60 a	2.17±0.02 a
	mM-MOM	NoF	7.79±0.07 a	2.28±0.02 c	4.18±0.04 d	85.75±0.56 a	1.83±0.01 b
		CF	7.42±0.08 b	2.37±0.02 bc	4.37±0.05 c	85.84±0.51 a	1.84±0.01 b
		CF+DM	7.29±0.06 bc	2.44±0.03 ab	4.63±0.06 b	85.64±0.48 a	1.90±0.01 a
		CF+2DM	7.14±0.07 c	2.52±0.04 a	4.87±0.06 a	85.47±0.63 a	1.93±0.02 a

Note: Different lowercase letters within the same column represent significant differences for each soil layer in the same component ($P < 0.05$, Tukey's HSD test).