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Soil microbial responses to labile carbon input differ in adjacent sugarcane and forest soils

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Table S1. Correlations between microbial biomass (MB), enzyme and CLPP activities. R² correlation coefficients and P values are presented for each soil. Significant correlations (P<0.05) are shown in bold.

<i>Correlations with MB</i>	Forest soil		Sugarcane soil	
	R ²	P	R ²	P
FDA	.033	.059	.041	.039
Cellulase	.033	.057	.026	.082
Glucosidase	.064	.014	.002	.282
Glucosaminidase	.126	.001	-.010	.648
Phosphatase	.104	.002	.022	.100
Protease	-.009	.611	.028	.075
Urease	-.003	.374	-.011	.736
Arginine	-.009	.457	-.008	.424
Asparagine	-.017	.645	-.012	.501
Glutamine	-.015	.592	.007	.252
Glycine	-.018	.683	-.011	.483
Glucosamine	-.017	.659	-.002	.352
Glucose	-.018	.686	-.002	.347
Sucrose	-.013	.538	-.010	.469
Fructose	.006	.259	-.017	.635
Citric acid	-.013	.535	-.021	.830
α keto-glutaric acid	.015	.194	-.007	.411
Urea	-.019	.726	-.022	.972
Uric acid	.028	.132	.031	.121
Cellulose	.045	.078	.125	.008
Vanillic acid	.001	.316	.136	.006
Syringic acid	.106	.014	.025	.145

Table S2. Community Level Physiological Profiling measurements.

All units are $\mu\text{g C-CO}_2 \text{ g}^{-1} \text{ h}^{-1}$ respired in response to each substrate, after subtraction of basal CO_2 respiration after water addition. Abbreviations are arginine (Arg), asparagine (Asp), glutamine (Glu), glycine (Gly), glutathione (GSA), glucose (Gluc), sucrose (Suc), Fructose (Fru), citrate (Cit), α -keto glutaric acid (a-k), urea (Ure), uric acid (Uri), cellulose (Cel), vanillic acid (Van), syringic acid (Syr). In each column within each harvest time point, values with different letters are significantly different to each other

Time	Treatment	Arg	Asp	Glu	Gly	GSA	Gluc	Suc	Fru	Cit	a-k	Ure	Uri	Cel	Van	Syr
Day 0	Sugarcane control	-0.19 (.02) ^B	0.76 (.05) ^A	0.34 (.04)	0.37 (.07)	0.13 (.05)	0.46 (.03) ^A	0.61 (.05) ^A	0.44 (.06) ^A	0.41 (.12) ^A	0.28 (.01) ^B	1.22 (.05)	0.59 (.07) ^A	0.04 (.04)	0.1 (.01)	0.21 (.02) ^B
	Forest control	0.01 (.03) ^A	0.24 (.03) ^B	0.32 (.04)	0.41 (.03)	-0.01 (.01)	0.33 (.02) ^B	0.33 (.03) ^B	0.22 (.02) ^B	0.12 (.02) ^B	0.59 (.03) ^A	1.32 (.05)	0.22 (.04) ^B	0.07 (.04)	0.05 (.00)	0.49 (.02) ^A
Day 30	Sugarcane control	-0.6 (.02) ^B	-0.26 (.04) ^B	0.68 (.18) ^B	0.12 (.09) ^B	-0.1 (.04)	0.64 (.08) ^B	0.74 (.06) ^B	0.52 (.01) ^B	0.23 (.06) ^B	1.02 (.11) ^A	1.33 (.31)	0.37 (.04) ^B	-0.1 (.03)	0.04 (.05)	0.35 (.08) ^A
	Forest control	0.03 (.03) ^A	0.28 (.01) ^B	0.28 (.04) ^B	0.4 (.02) ^A	0.06 (.01)	0.41 (.03) ^C	0.5 (.02) ^B	0.28 (.01) ^B	0.26 (.01) ^B	0.51 (.02) ^B	1.16 (.03)	0.2 (.02) ^C	0.06 (.01)	0.08 (.01)	0.31 (.02) ^A
	Sugarcane sucrose	-0.87 (.01) ^B	0.12 (.14) ^B	0.35 (.26) ^B	0.14 (.12) ^B	-0.17 (.02)	1.39 (.28) ^A	1.72 (.23) ^A	1.52 (.23) ^A	-0.19 (.15) ^B	0.33 (.06) ^C	1.03 (.27)	0.81 (.1) ^A	-0.18 (.04)	-0.06 (.07)	0.33 (.04) ^A
	Forest sucrose	0.21 (.06) ^A	2.55 (.34) ^A	0.87 (.05) ^A	0.49 (.07) ^A	0.2 (.02)	0.59 (.05) ^{BC}	0.66 (.05) ^B	0.37 (.1) ^B	0.73 (.1) ^A	1.17 (.16) ^A	1.33 (.11)	0.42 (.04) ^B	0.1 (.01)	0.11 (.01)	0.07 (.05) ^B
Day 61	Sugarcane control	-0.03 (.05) ^C	0.35 (.12) ^B	0.38 (.08) ^B	0.9 (.1) ^A	0.48 (.08) ^C	1.57 (.12) ^A	1.16 (.09) ^C	0.81 (.06) ^B	0.29 (.11) ^C	0.16 (.11) ^D	0.66 (.24) ^D	0.56 (.15) ^C	-0.02 (.03) ^B	0.16 (.01) ^B	0.14 (.03) ^B
	Forest control	0.26 (.07) ^B	0.21 (.09) ^B	0.24 (.06) ^B	0.28 (.04) ^B	0.15 (.02) ^D	0.51 (.11) ^C	0.94 (.13) ^C	0.58 (.04) ^B	0.55 (.14) ^B	0.34 (.04) ^C	1.74 (.21) ^B	0.85 (.05) ^{BC}	0.21 (.03) ^A	0.17 (.04) ^B	0.26 (.08) ^B
	Sugarcane sucrose	0.01 (.03) ^C	1.36 (.31) ^A	1.37 (.11) ^A	1.14 (.04) ^A	3.41 (.4) ^A	0.77 (.04) ^{BC}	3.88 (.49) ^A	1.59 (.22) ^A	0.45 (.07) ^{BC}	0.62 (.11) ^B	1.16 (.23) ^C	1.34 (.17) ^B	0.25 (.08) ^A	0.25 (.08) ^B	0.22 (.11) ^B
	Forest sucrose	0.74 (.25) ^A	1.41 (.41) ^A	1.42 (.23) ^A	1.25 (.33) ^A	1.67 (.31) ^B	0.81 (.26) ^B	2.42 (.43) ^B	1.51 (.23) ^A	1.92 (.25) ^A	1.6 (.2) ^A	2.33 (.41) ^A	1.6 (.17) ^A	0.38 (.07) ^A	0.63 (.09) ^A	0.62 (.1) ^A
Day 150	Sugarcane control	-0.40 (.02) ^C	0.51 (.15) ^A	0.43 (.11) ^A	0.55 (.13) ^A	0.13 (.09) ^{AB}	0.81 (.15) ^A	1.13 (.16) ^A	0.64 (.19) ^B	0.41 (.14) ^A	0.61 (.14) ^A	0.89 (.12) ^A	0.63 (.14) ^A	0.16 (.08) ^{AB}	0.08 (.07) ^B	0.26 (.06) ^A
	Forest control	-0.24 (.01) ^B	0.26 (.02) ^B	0.24 (.02) ^B	0.3 (.04) ^B	0.09 (.03) ^B	.12 (.04) ^C	0.3 (.07) ^C	0.14 (.04) ^C	0.24 (.05) ^{AB}	0.47 (.04) ^B	0.93 (.05) ^A	0.16 (.03) ^C	0.01 (.02) ^C	0.01 (.03) ^B	0.08 (.04) ^B
	Sugarcane sucrose	-0.21 (.00) ^B	0.26 (.03) ^B	0.22 (.02) ^B	0.18 (.01) ^B	0.06 (.01) ^B	0.61 (.04) ^B	0.85 (.05) ^B	0.41 (.03) ^B	0.16 (.03) ^B	0.29 (.04) ^C	0.67 (.09) ^B	0.37 (.04) ^B	0.07 (.01) ^{BC}	0.04 (.01) ^B	0.09 (.03) ^B
	Forest sucrose	-0.02 (.03) ^A	0.33 (.08) ^B	0.37 (.05) ^A	0.45 (.06) ^A	0.25 (.03) ^A	0.84 (.06) ^A	1.07 (.06) ^A	0.93 (.05) ^A	0.33 (.08) ^A	0.48 (.05) ^B	1.31 (.17) ^A	0.54 (.03) ^A	0.21 (.02) ^A	0.27 (.08) ^A	0.26 (.03) ^A