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Supplement of

Microbial carbon recycling – an underestimated process controlling soil carbon dynamics – Part 1: A long-term laboratory incubation experiment

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1 **Supplementary**

2 Table S1. AIC values of the tested exponential decay models. Best fits with the lowest AIC are in italic.

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		fuc	ara	rha	gal	xyl	man
wheat Ap	mono exponential	*-197.14*	*-251.31*	-141.61	-178.33	*-208.01*	*-162.85*
	bi-exponential	\	-247.46	*-159.22*	-208.66	-206.95	-160.85
wheatE	mono exponential	-27.47	*-43.57*	*-23.89*	*-33.08*	-39.77	-27.63
	bi-exponential	*-34.02*	-41.62	-20.26	\	*-44.39*	*-40.6*
grassland Ah	mono exponential	*-106.8*	-89.54	-31.97	-51.83	*-111.34*	-48.37
	bi-exponential	\	*-102.12*	*-91.17*	*-99.04*	-109.61	*-48.86*
forest Ah	mono exponential	-150.61	-117.8	-116.37	-132.12	-151.77	-117.55
	bi-exponential	*-171.96*	*-123.89*	\	*-13632*	*-164.17*	\

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1 Table S2. Fitting parameters of the best fit, chosen by the AIC.(0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1.)

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		Ara		Xyl		Fuc		Rha		Gal		Man	
wheat Ap	a	0.48	***	0.29	***	1.20	***	1.88	***	1.52	***	1.96	***
	k1	-0.002	**	-0.01	***	0.002	**	-0.002	***	0.00001	0.00	0.004	***
	b							-2.54		-0.39	**		
	k2							4.08		1.13	**		
	r2	0.35		0.61		0.45		0.50		0.29		0.77	
wheat Al	a	0.65	***	0.38		1.22	***	1.93	***	1.39	***	1.68	***
	k1	0.001		0.45		0.001		-0.0002		-0.0002		0.001	
	b			0.52	***	0.74						0.58	*
	k2			-0.01	.	0.50						0.14	
	r2	0.16		0.72		0.85		0.06		0.04		0.97	
grassland Ah	a	0.44	***	0.36	***	0.67	***	1.21	***	-0.40	***	1.66	***
	k1	-0.001		-0.001		0.001		0.0004	0.00	0.76	***	0.005	**
	b	-0.15	*					-0.68	***	0.84	***	-0.41	
	k2	1.207	.					-0.79	***	0.00		2.14	
	r2	0.99		0.27		0.35		0.99		0.98		0.73	

forest Ah	a	0.41	***	0.21	***	0.24	***	0.31	***	0.33	***	0.52	***
	k1	0.029	0.00	0.00	**	0.001		0.0002		0.0015		0.002	*
	b	-0.29	*	-0.28		0.06	**			-0.22			
	k2	0.07	.	1.72		0.15	.			1.41			
	r2	0.63	0.00	0.75		0.97		0.04		0.56		0.45	

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