

**Non-target effects on soil microbial parameters of the synthetic pesticide
carbendazim with the biopesticides cantharidin and norcantharidin**

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Table S1. Relationships between pesticide concentration and microbial parameters at each incubation time.

Parameter	Day	CBA		CTD		NCTD	
		Regression	r ²	Regression	r ²	Regression	r ²
INV	3	P=-0.07 C+73.965	0.0676	P=-0.29 C+70.65	0.263	P=-0.058•C+98.49	0.46
	7	P=-0.08•C+61.11	0.109	P=-0.20•C+59.57	0.206	P=-0.020•C+62.02	0.268
	15	P=-0.11•C+56.43	0.562	P=-0.11•C+56.90	0.322	P=-0.018•C+64.22	0.541
	35	P=-2.40•C+169.0	0.242	P=-5.36•C+374.78	0.471	P=-0.014•C+63.40	0.264
URE	3	P=-0.0009•C+4.39	0.030	P=-0.0008•C+4.77	0.037	P=-0.0002•C+4.38	0.074
	7	P=-0.004•C+4.10	0.843	P=-0.0045•C+4.33	0.544	P=-0.0003•C+4.12	0.204
	15	P=-0.0014•C+3.81	0.105	P=-0.0078•C+4.51	0.282	P=-0.004•C+4.10	0.054
	35	P=0.0076•C+3.41	0.71	P=-0.0158•C+3.71	0.96	P=-0.0004•C+3.64	0.68
ALK-PHO	3	P=-0.019•C+7.04	0.16	P=-0.016•C+9.36	0.49	P=-0.0025•C+9.56	0.74
	7	P=0.0014•C+5.83	0.014	P=0.0055•C+5.38	0.50	P=-0.0002•C+5.39	0.20
	15	P=0.0044•C+6.62	0.18	P=-0.019•C+6.18	0.97	P=0.008•C+5.95	0.38
	35	P=-0.0012•C+7.52	0.21	P=-0.003•C+7.84	0.26	P=-0.0032•C+7.76	0.98
NEU-PHO	3	P=-0.0016•C+3.05	0.60	P=-0.0047•C+3.15	0.99	P=-0.0003•C+2.86	0.15
	7	P=-0.0022•C+3.32	0.26	P=-0.0053•C+2.98	0.12	P=-0.0001•C+3.36	0.04
	15	P=-0.0006•C+3.53	0.05	P=-0.0012•C+3.38	0.97	P=0.0002•C+3.64	0.10
	35	P=0.0018•C+3.85	0.12	P=-0.0022•C+3.8	0.41	P=-0.0002•C+4.15	0.02

C: in mg kg⁻¹ DW soil; P: for units, see figures.

NEV: invertase activity; URE: urease activity; ALK-PHO: alkaline phosphatase activity; NEU-PHO: neutral phosphatase activity.

Table S2. Analysis of variance for soil microbial parameters as affected by different factors and corresponding interactions.

Factor	INE	URE	PHO-OH	PHO-NEU	H'-FUN
P	<0.001	<0.001	<0.001	<0.001	<0.001
C	<0.001	<0.001	<0.001	<0.001	<0.001
T	<0.001	<0.001	<0.001	<0.001	0.13
P×C	-	-	-	-	-
P×T	0.001	0.27	0.006	<0.001	0.27
C×T	<0.001	0.15	<0.001	<0.001	<0.001
P×C×T	-	-	--	-	-

P: type of pesticide; C: pesticide concentration; T: incubation time.

INE: invertase activity; URE: urease activity; PHO-OH: phosphatase alkaline; PHO-NEU: phosphatase neutral; H'-FUN: Shannon's index of fungal community diversity.