

Supplementary Materials:

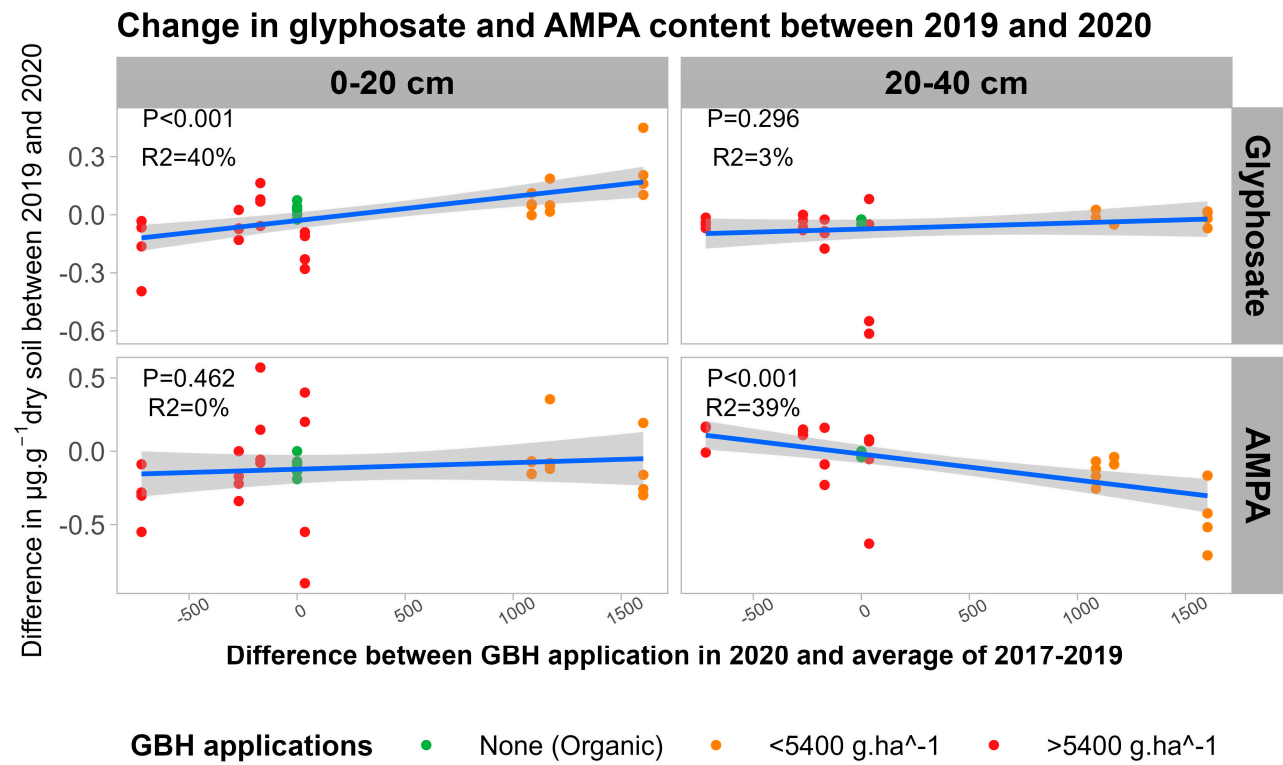


Figure S1: Correlation between difference in glyphosate (top) and AMPA (bottom) contents between 2019 and 2020 and the difference in GBH application in 2020 and the yearly average GBH application between 2017-2019.

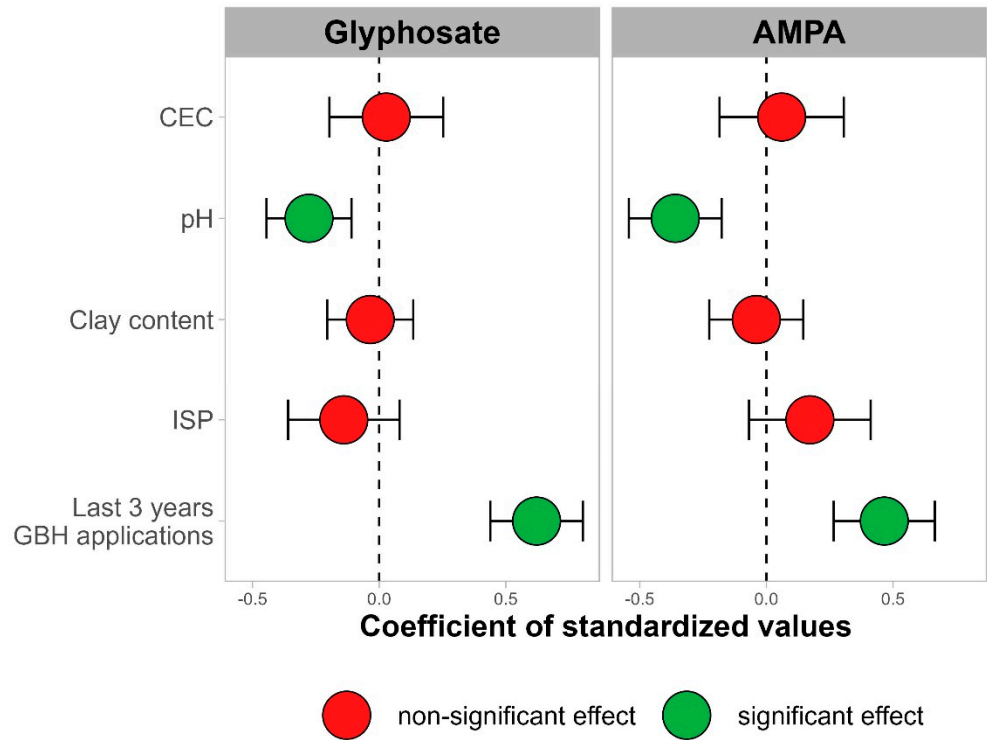


Figure S2: Coefficients values along with their 95% confidence interval for all independent variables in multiple regressions for AMPA (right) and glyphosate (left) content for 0-20 cm soil profile of all sites.

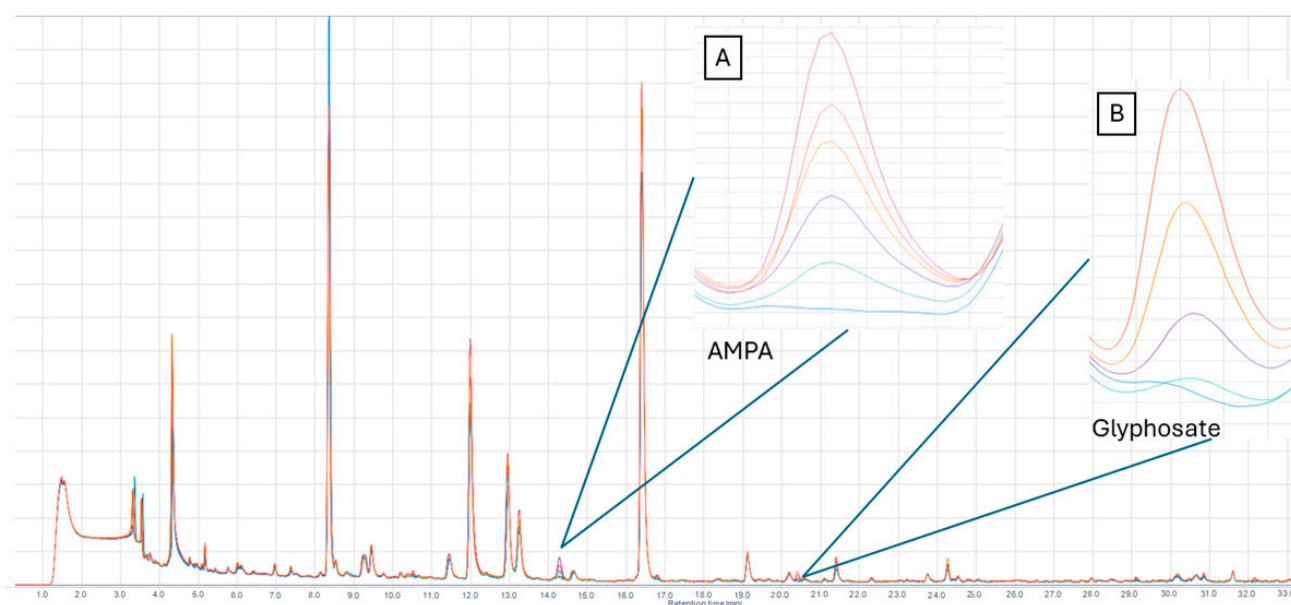


Figure S3: Chromatographs of a six-point calibration curve for AMPA (A) and a five point calibration curve for glyphosate (B) on a soil matrix.

Supplemental Table S1: Marginal effect of soil properties on microbial communities' composition for the 0-20 soil horizon.

Variable	Prokaryotic community		Fungal community		Eukaryotic community	
	Pseudo-F value	P-value	Pseudo-F value	P-value	Pseudo-F value	P-value
pH	1.08	0.325	1.12	0.243	0.874	0.591
pH_SMP	1.03	0.382	1.56	0.029	0.728	0.814
Organic matter	2.53	0.005	1.53	0.028	1.98	0.011
P	0.734	0.776	0.834	0.713	1.12	0.312
Al	0.865	0.587	1.02	0.393	1.05	0.371
K	0.722	0.816	1.07	0.334	0.749	0.777
Ca	2.46	0.009	1.57	0.027	1.81	0.027
Mg	1.33	0.173	1.52	0.033	1.35	0.145
B	0.908	0.530	1.33	0.073	1.20	0.207
Cu	0.973	0.427	1.21	0.147	1.06	0.351
Fe	1.01	0.389	1.11	0.269	1.12	0.275

Mn	1.25	0.189	1.15	0.211	1.05	0.351
Zn	0.706	0.805	1.28	0.107	1.12	0.284
Na	2.49	0.001	2.06	0.001	2.15	0.011
C	1.25	0.206	1.10	0.296	1.22	0.214
N	1.34	0.164	1.42	0.059	1.25	0.191
Clay content	2.12	0.013	2.00	0.003	2.59	0.002
Sand content	1.80	0.033	1.78	0.005	2.06	0.014