

Table S1 Column packing and experimental flow conditions for imidacloprid and dimethoate transport in experimental soil columns.

Setup	Parameters	Soil				
		S1 Pag	S2 Brač	S3 Istria	S4 Dubrovnik	S5 Krk
Column packing		Imidacloprid				
	L (cm) ¹	8.00	8.00	8.00	8.00	8.00
	m (g) ²	12.8	12.1	12.9	11.2	12.6
	ρ (g/cm ³) ³	1.22	1.52	1.06	1.61	1.09
	Θ_v ⁴	0.50	0.45	0.55	0.43	0.52
Input pulse and water flow	γ_0 (mg/L) ⁵	5.14	4.91	5.44	4.32	4.96
	Q (mL/min) ⁶	0.39	0.39	0.39	0.39	0.39
	ν (cm/min) ⁷	0.99	1.10	0.90	1.16	0.96
	D (cm ² /min) ⁸	1.35	3.00	1.10	1.66	1.12
	Total duration (min) ⁹	16.0	15.8	15.2	16.6	16.3
Column packing		Dimethoate				
	L (cm) ¹	8.00	8.00	8.00	8.00	8.00
	m (g) ²	13.0	13.1	13.4	12.0	12.5
	ρ (g/cm ³) ³	1.04	1.07	1.02	1.01	1.09
	Θ_v ⁴	0.51	0.53	0.54	0.54	0.44
Input pulse and water flow	γ_0 (mg/L) ⁵	4.99	5.02	4.97	4.13	4.38
	Q (mL/min) ⁶	0.39	0.39	0.39	0.39	0.39
	ν (cm/min) ⁷	0.97	0.94	0.92	0.92	1.13
	D (cm ² /min) ⁸	1.74	1.69	1.00	1.03	2.28
	Total duration (min) ⁹	16.7	16.7	17.2	18.6	18.3

¹column length; ²mass of dry soil; ³bulk density; ⁴volumetric water content at saturation; ⁵input insecticide solution concentration; ⁶flow rate; ⁷pore water velocity; ⁸hydrodynamic dispersion coefficient; ⁹time for column saturation