

Acetamiprid fate in a sandy loam with contrasting soil organic matter contents: A comparison of the degradation, sorption and leaching of commercial neonicotinoid formulations

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Supplementary material

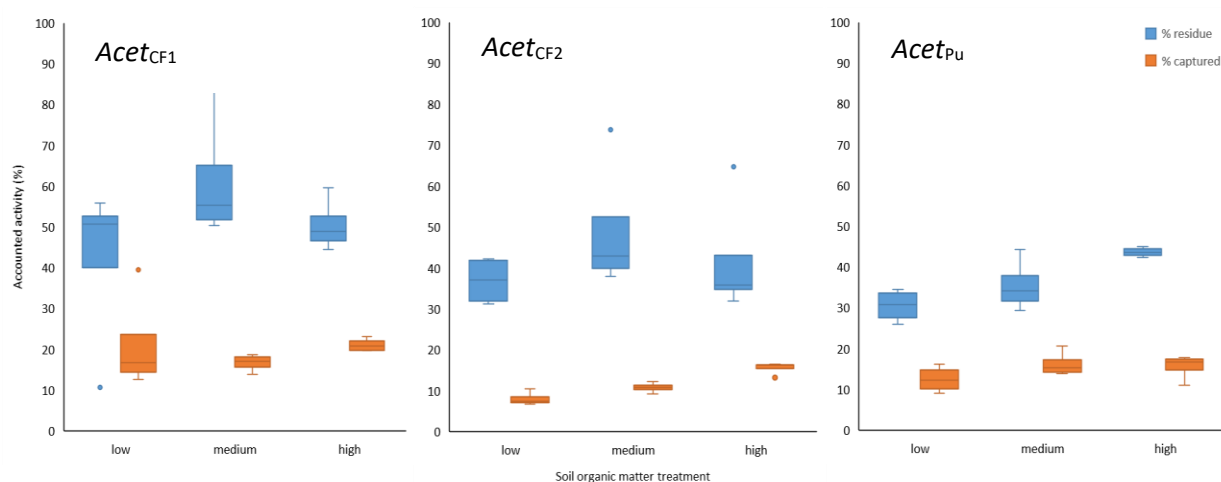


Fig. S1. Percentage of radiolabelled acetamiprid accounted for in both the captured and remaining soil residues. Boxes are bounded on the first and third quartiles; horizontal lines denote medians, and black crosses denote mean values. Coloured dots are outliers beyond the whiskers.

Table S1. Endpoint K_d partition coefficient values (g ml^{-1}) for the three different acetamiprid formulations under three different SOM levels.

	SOM _{low}	SOM _{med}	SOM _{high}
Bug Clear Ultra [®] (Acet _{CF1})	0.591	0.725	0.849
Rose Clear Ultra [®] (Acet _{CF2})	0.583	0.604	0.816
Pure Acetamiprid (Acet _{Pure})	0.518	0.732	0.945

The K_d values show a significant increase alongside SOM treatment increase ($F_{(2,27)} = 16.641$, $P < 0.001$; Table S1), with SOM_{high} exhibiting significantly different values across all three chemical treatments (Tukey post-hoc analysis: High:Low $P < 0.001$, High:Med $P = 0.005$). Unlike the initial sorption analysis, when assessing the endpoint K_d values only the level of

SOM was shown to be significant; with none of the three chemical formulations behaving differently from each other.