

SUPPLEMENTARY MATERIAL

Soil sorption characteristics of benzobicyclon hydrolysate and estimated leaching risk in soils used for rice production

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Table S1. Summary of general information associated with 10 Arkansas soils used for batch-equilibration sorption studies of benzobicyclon hydrolysate.

Soil ID	Soil Series	Sampling Location ^A	Measured Texture	Soil Taxonomic Description
1	Sharkey	NEREC ^B	Clay	Chromic Epiaquerts
2	Sharkey	NEREC ^B	Clay	Chromic Epiaquerts
3	Sharkey-Desha	RRS	Silty clay	Chromic Epiaquerts - Vertic Hapludolls
4	Herbert	RRS	Silt loam	Udolic Epiaqualfs
5	DeWitt	RREC	Silt loam	Typic Albaqualfs
6	Calloway	PTRS	Silt loam	Aquic Fraglossudalfs
7	Henry	Poinsett County	Silty clay loam	Typic Fragiaqualfs
8	Henry	PTRS	Silt loam	Typic Fragiaqualfs
9	Calhoun	PTRS	Silt loam	Typic Glossaqualfs
10	Tunica	NEREC	Loam	Vertic Epiaquepts

^A NEREC, Northeast Research and Extension Center, Keiser, AR; PTRS, Pine Tree Research Station near Colt, AR; RREC, Rice Research and Extension Center, near Stuttgart, AR; RRS, Rohwer Research Station, Rohwer, AR; Poinsett County sampling location on privately owned land

^B Soils collected from the same research station, but from different fields approximately 3 km apart.

Table S2. Summary of estimated soil properties [i.e., bulk density (BD), total porosity (f_t)], climate data, and soil water flux inputs for 10 Arkansas soils used for batch-equilibration sorption studies of benzobicyclon hydrolysate.

Soil ID	BD (g cm ⁻³)	f_t (cm ³ cm ⁻³)	County location	Weather Station ^A	Precipitation ^B (cm)	Soil Water Flux ^C (cm growing season ⁻¹)		
						Low	Avg	High
1	1.24	0.53	Mississippi	Keiser	55.1	39.8	71.3	103
2	1.31	0.51	Mississippi	Keiser	55.1	39.8	71.3	103
3	1.25	0.53	Desha	Rohwer 2 NNE	60.9	45.6	77.1	109
4	1.48	0.44	Desha	Rohwer 2 NNE	60.9	45.6	77.1	109
5	1.44	0.46	Arkansas	Stuttgart 9 ESE	55.6	40.3	71.8	103
6	1.47	0.45	St. Francis	Forrest City	67.6	52.3	83.8	115
7	1.39	0.48	Poinsett	Grubbs 4 E	55.8	40.5	72.0	103
8	1.41	0.47	St. Francis	Forrest City	67.6	52.3	83.8	115
9	1.39	0.48	St. Francis	Forrest City	67.6	52.3	83.8	115
10	1.48	0.44	Mississippi	Keiser	55.1	39.8	71.3	103

^A iAIMS Climatic Data network (Wilson et al. 2007; Yang et al. 2010)

^B Calculated cumulative precipitation from iAIMS historical average daily rainfall for the growing season, assumed to be April 1-Sept 30.

^C Soil water flux over the growing season.