

Figure 2: Soil-only (S) equilibration time between erythromycin and Caneseraga soil (blue) compared to control reactors (yellow) with no soil. Error bars represent the range of the 3 replicates used to obtain the points plotted.

Table 3: Converted model parameters from linearized and non-linear regressions. Eq. 2 is the non-linear regression and Eq. 3 the linearization are Langmuir isotherms with K and q_{max} parameters.

Model	S Parameters		SM Parameters	
	K	q_{max}	K	q_{max}
Eq. 2	$8.01 \times 10^{-2} *$	$1.53 \times 10^{-3} *$	NA [†]	NA [†]
Eq. 3	$6.38 \times 10^{-2} *$	$1.52 \times 10^{-3} *$	$1.99 \times 10^{-4} *$	4.63×10^{-2}

* Statistically significant model parameters (p -value < 0.05)

[†] Non-linear regression modeling (Eq. 2) with the SM data did not generate a stable result.

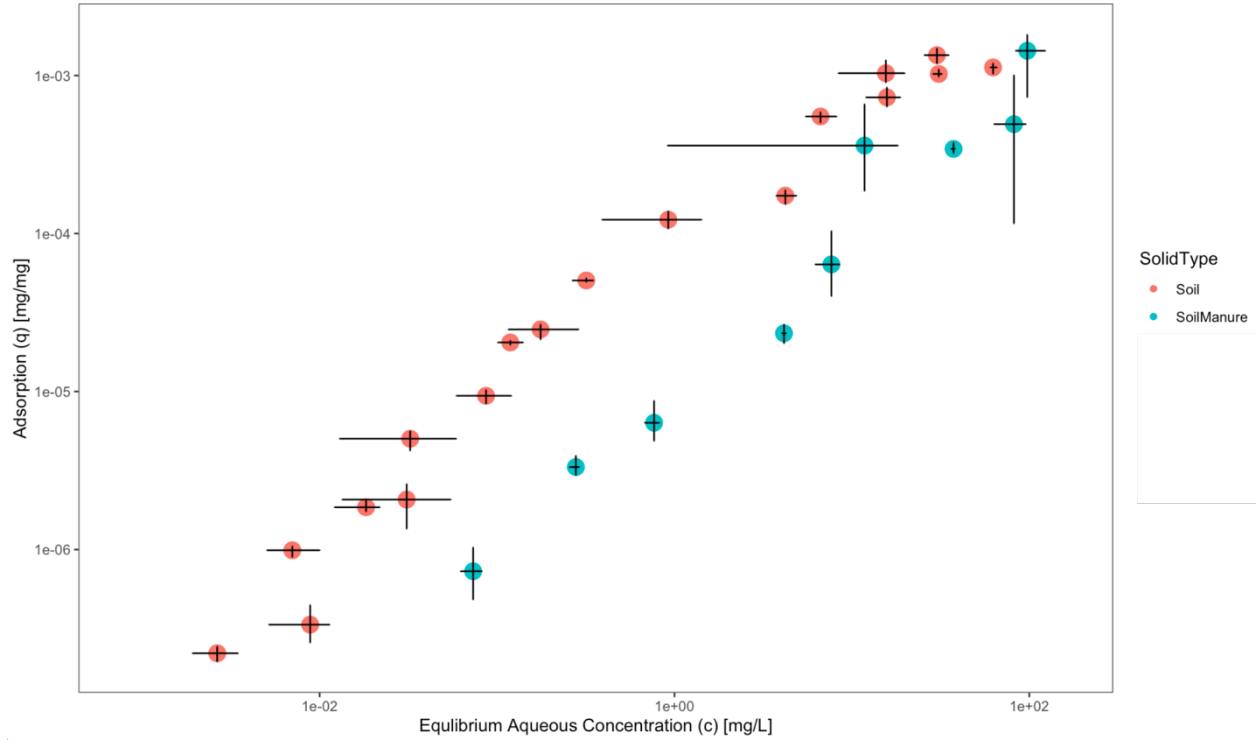


Figure 3: Soil-only (S) and soil + manure (SM) isotherms. Error bars represent the range in the 3 replicates averaged for each point.

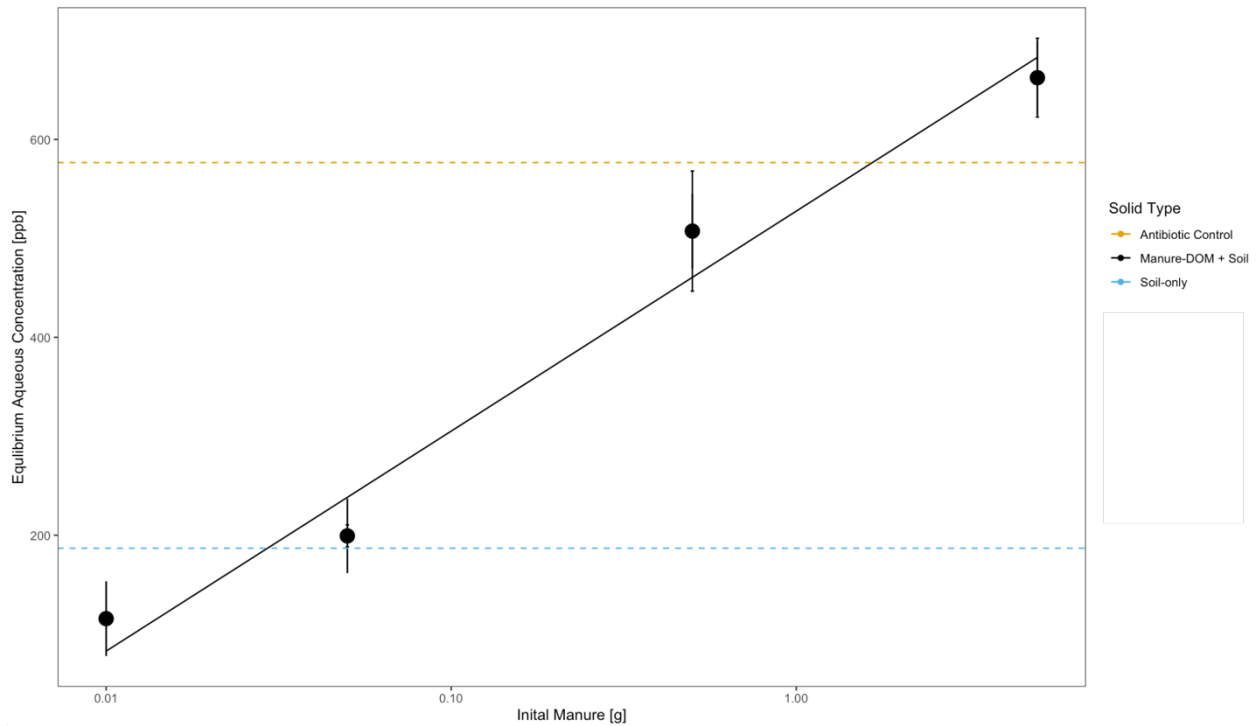


Figure 4: Filtered manure-DOM influence on erythromycin aqueous concentration after 72 hr reaction with 5 g soil. Error bars represent the range of the data. Fitted model follows eq.4 (black line). Antibiotic control (yellow line) and 72 hr S sample (blue line) are provided for reference.

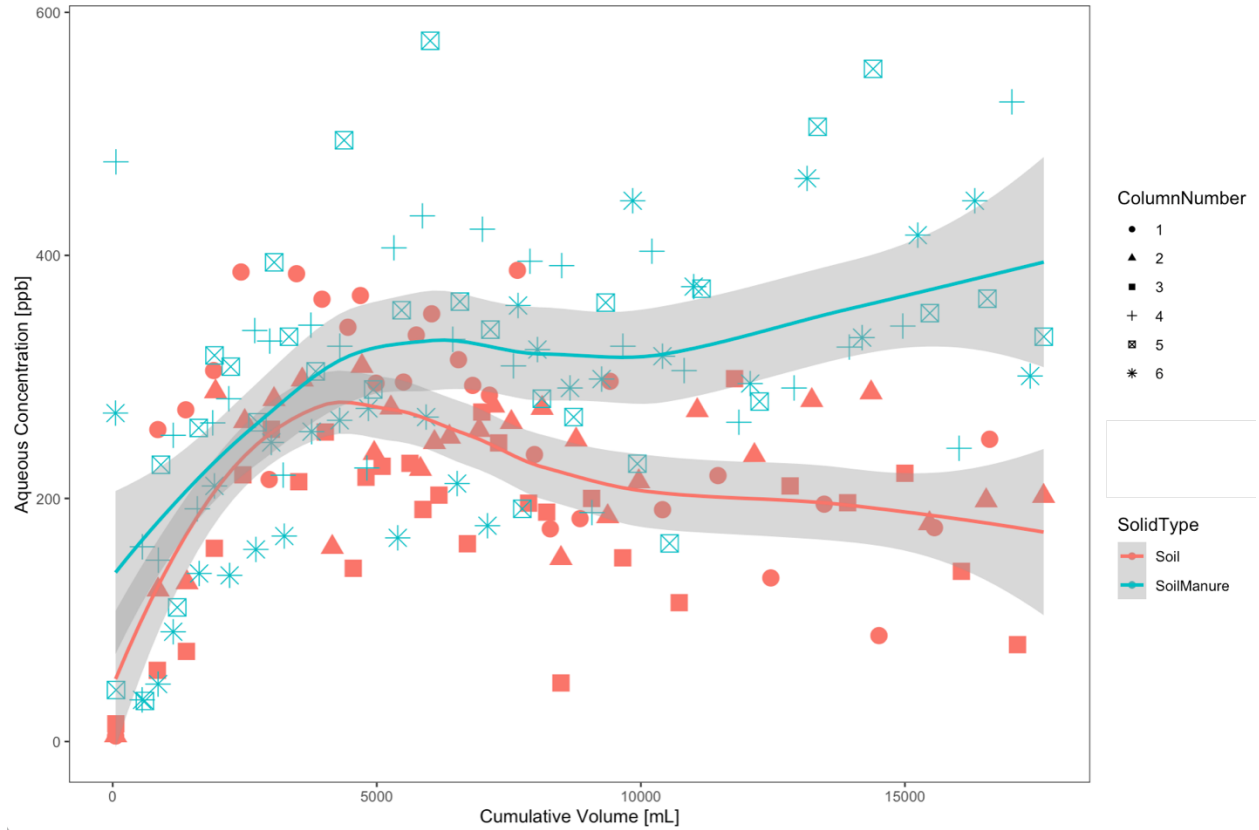


Figure 5: Aqueous concentrations of erythromycin ($C_o = 500$ ppb) after passage through S (red) or SM (blue) columns. Unique shapes indicate samples from the same columns. Columns 1-3 were S, columns 4-6 were SM. Trend lines are fitted with a loess smoothing model.