

Supplementary Materials: Influence of Two Garlic-Derived Compounds, Propyl Propane Thiosulfonate (PTS) and Propyl Propane Thiosulfinate (PTSO), on Growth and Mycotoxin Production by *Fusarium* Species in Vitro and in Stored Cereals

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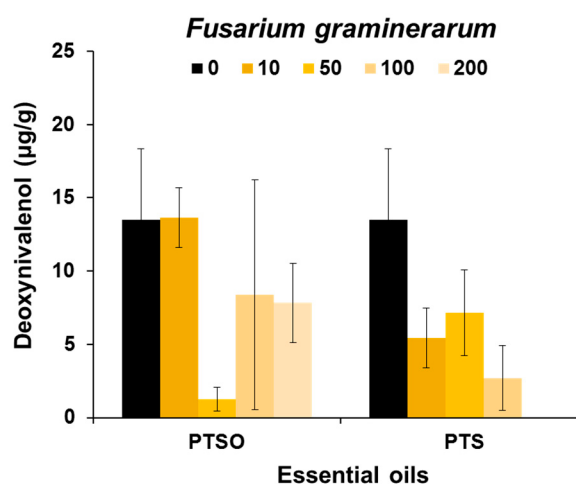


Figure S1. Effect of 0–250 ppm PTSO and PTS on *in vitro* DON production by *F. graminearum* in wheat agar media at 25°C. Vertical bars indicate the standard error of the means.

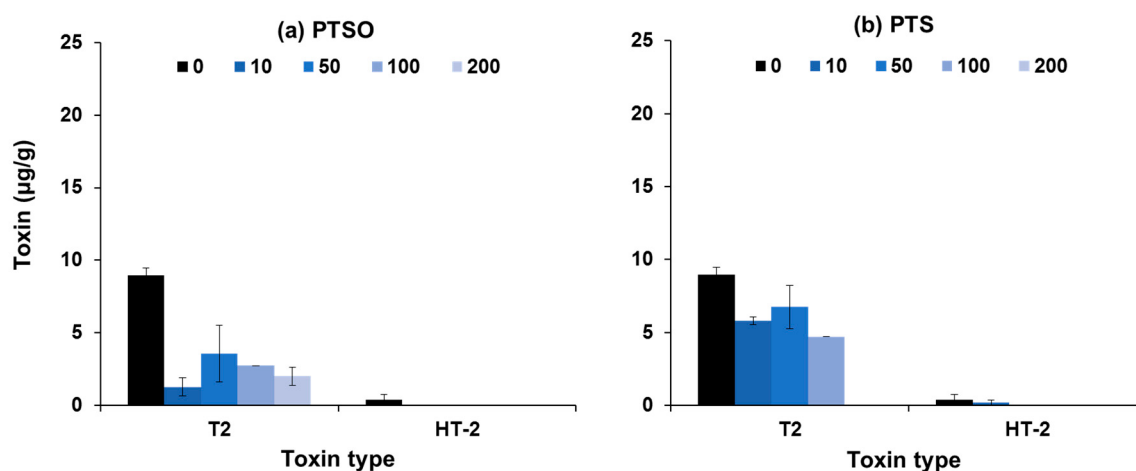


Figure S2. Effect of 0–250 ppm (a) PTSO and (b) PTS on the production of T-2 and HT-2 toxins by *F. langsethiae* *in vitro* at 25 °C. Vertical bars indicate the standard error of the means.

Table S1. One-way ANOVA for the effect of different PTS and PTSO concentrations on *in vitro* fumonisins (B₁ and B₂) production by *F. verticillioides*.

	Effect	SS	DF	MS	F	p
PTS	Intercept	9.169	1	9.169	933.238	<0.001
	logFB ₁					
	ppm	2.450	4	0.613	62.346	<0.001
	Error	0.098	10	0.01		
	Intercept	1.737	1	1.737	109.022	<0.001
	logFB ₂					
PTSO	ppm	2.365	4	0.591	37.106	<0.001
	Error	0.159	10	0.016		
	Intercept	4216.142	1	4216.142	204.658	<0.001
	FB ₁					
	ppm	302.680	4	75.670	3.673	0.043
	Error	206.009	10	20.601		
PTSO	Intercept	502.71	1	502.71	154.425	<0.001
	FB ₂					
	ppm	28.237	4	7.059	2.169	0.146
	Error	32.554	10	3.255		

Table S2. Kruskal-Wallis ANOVA by ranks for the effect of PTSO concentration and substrate water activity on the production of T-2 and HT-2 toxins by *F. langsethiae*.

	Effect	Code	Valid N	Sum of Ranks	Mean Rank
T-2 toxin	ppm PTSO	1	6	81.000	13.500
		2	6	43.000	7.167
		3	6	47.000	7.833
	a _w	1	9	77.000	8.556
		2	9	94.000	10.444
HT-2 toxin	ppm PTSO	1	6	69.000	11.500
		2	6	45.000	7.500
		3	6	57.000	9.500
	a _w	1	9	75.000	8.333
		2	9	96.000	10.667

* T-2: a_w: H (1, N = 18) = 0.57, $p = 0.452$; ppm PTSO: H (2, N = 18) = 5.12, $p = 0.077$; HT-2: a_w: H (1, N = 18) = 0.88, $p = 0.349$; ppm PTSO: H (2, N = 18) = 1.72, $p = 0.423$.

Table S3. Summary of statistical *P*-values of effects of (a) PTS and (b) PTSO on mycotoxin contamination of stored cereals.

	Mycotoxin	logDON (wheat)	logT2 + HT2 (oats)	logFUMs (maize)
a) PTS	Intercept	< 0.001	< 0.001	< 0.001
	PTS ppm	0.044	0.924	0.011
	<i>a_w</i>	<0.001	0.167	0.011
	Storage time	0.011	0.161	0.011
	ppm x <i>a_w</i>	0.205	0.234	0.011
	ppm x storage time	0.107	0.241	0.555
	<i>a_w</i> x storage time	0.963	0.043	<0.001
	ppm x <i>a_w</i> x storage time	0.779	0.380	0.428
b) PTSO	Mycotoxin	DON (wheat)	logT2 + HT2 (oats)	
	Intercept	<0.001	< 0.001	
	PTS ppm	0.709	0.070	
	<i>a_w</i>	0.912	0.010	
	Storage time	<0.001	0.296	
	ppm x <i>a_w</i>	0.716	0.901	
	ppm x storage time	0.590	0.989	
	<i>a_w</i> x storage time	0.615	0.064	
	ppm x <i>a_w</i> x storage time	0.667	0.065	