

Stacked Bt maize and arthropod predators – Exposure to insecticidal Cry proteins and potential hazards

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Supplemental Table 1: Statistical analyses of life table parameters of lacewing larvae (*Chrysoperla carnea*), ladybeetle larvae (*Harmonia axyridis*), and juvenile spiders (*Phylloneta impressa*) in bi- and tritrophic feeding experiments. The predators were offered pollen from SmartStax (Bt) or control (non-Bt) maize, aphids (*Rhopalosiphum padi*), or spider mites (*Tetranychus urticae*) feeding on whole SmartStax or control plants. Significant comparisons are marked in red.

Parameter	Analysis ¹	Factor	Statistic ²	p-value
<i>P. impressa</i> juveniles				
Weight increase ³	3-way ANOVA	Bt	$F_{1,276}=1.62$	0.204
		Food	$F_{2,276}=103.04$	<0.00001
		Duration	$F_{2,276}=6.17$	0.0024
		Bt*Food	$F_{2,276}=0.59$	0.555
		Bt*Duration	$F_{2,276}=0.42$	0.657
		Food*Duration	$F_{4,276}=4.07$	0.003
		Bt*Food*Duration	$F_{4,276}=1.16$	0.327
Mortality aphids	Log-Rank Test	Bt	Test Statistic=0.43	0.665
Mortality spidermites	Log-Rank Test	Bt	Test Statistic=1.14	0.254
Mortality pollen	Log-Rank Test	Bt	Test Statistic=0.26	0.792
<i>C. carnea</i> larvae				
Weight 2 nd instar	2-way ANOVA	Bt	$F_{1,498}=1.90$	0.169
		Food	$F_{2,498}=90.71$	<0.00001
Weight 3 rd instar	2-way ANOVA	Bt*Food	$F_{2,498}=2.16$	0.116
		Bt	$F_{1,282}=0.22$	0.643
		Food	$F_{2,282}=22.39$	<0.00001
Time hatching to 2 nd instar	GZLM	Bt*Food	$F_{2,282}=0.31$	0.737
		Bt	Wald=0.02	0.881
Time hatching to 3 rd instar	GZLM	Food	Wald=75.85	<0.00001
		Bt*Food	Wald=0.07	0.964
		Bt	Wald=0.48	0.490
Mortality aphids	Log-Rank Test	Food	Wald=139.27	<0.00001
		Bt*Food	Wald=1.28	0.528
Mortality spidermites	Log-Rank Test	Bt	Test Statistic=-0.83	0.409
Mortality pollen	Log-Rank Test	Bt	Test Statistic=0.54	0.589
<i>H. axyridis</i> larvae				
Weight 2 nd instar	2-way ANOVA	Bt	$F_{1,252}=0.01$	0.910
		Food	$F_{2,252}=52.30$	<0.00001
Weight 3 rd instar	2-way ANOVA	Bt*Food	$F_{2,252}=0.37$	0.692
		Bt	$F_{1,218}=0.84$	0.361
		Food	$F_{2,218}=119.44$	<0.00001
Time hatching to 2 nd instar	GZLM	Bt*Food	$F_{2,218}=0.94$	0.391
		Bt	Wald=0.21	0.649
Time hatching to 3 rd instar	GZLM	Food	Wald=44.47	<0.00001
		Bt*Food	Wald=0.31	0.857
		Bt	Wald=0.04	0.840
Mortality aphids	Log-Rank Test	Food	Wald=62.96	<0.00001
		Bt*Food	Wald=0.04	0.981
Mortality spidermites	Log-Rank Test	Bt	Test Statistic=1.78	0.076
Mortality pollen	Log-Rank Test	Bt	Test Statistic=0.053	0.958
			Test Statistic=-1.43	0.153

¹ Weight data were log transformed prior to ANOVA; Generalized Linear Models (GZLM) were conducted with Poisson distribution and log link function.

² Differences between the individual food treatments for weight and time data (posthoc tests) are provided in Table 1 of the main manuscript.

³ Weight increase = end weight / start weight for long (37 d), medium (20–26 d) or short (7–12 d) feeding duration.