

Table S6: Table of AIC values for model selection investigating the influence of single plant chemical traits on the tolerance of monarch butterflies to infection, or virulence of monarch parasites. Because cardenolide polarity correlated with both log-transformed cardenolide concentrations ($r= 0.60$, $p<0.0001$) and cardenolide diversity ($r=0.74$, $p <0.0001$), the only independent factor that could be added to the polarity model with the lowest AIC score was foliar nitrogen concentration. Addition of this factor did not improve the fit of models for either tolerance or virulence that already included cardenolide polarity (AIC = 118.75 & 120.5, respectively). We include the AIC values of both tolerance and virulence models containing only CO₂ treatment for comparison.

Tolerance		Virulence	
<i>lifespan ~ spore load * fixed effect</i>		<i>lifespan ~ parasite treatment * fixed effect</i>	
model of single fixed effect	AIC	model of single fixed effect	AIC
Cardenolide Polarity	114.76	Cardenolide Polarity	116.19
ln(Cardenolides)	122.38	ln(Cardenolides)	123.22
Nitrogen Percent	122.17	Nitrogen Percent	122.09
Cardenolide Diversity	123.42	Cardenolide Diversity	123.90
CO ₂ treatment	119.47	CO ₂ treatment	120.00