Supplementary Material

Short Communication: Susceptibility of Adult Engorged Ticks, *Rhipicephalus microplus* (Acari: Ixodidae) to a Native Heterorhabditid Isolate (Nematoda: Heterorhabditidae) in Colima, Mexico

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Supplementary Table SI.- Mortality (%) of engorged ticks, *Rhipicephalus microplus,* by the application of different concentrations of *Heterorhabditis* sp. JMO71 at different time intervals under laboratory conditions.

Time (h)/ Concent.	24	48	72	96	120	144	168	192	216
0	0.00[b]	0.00[b]	0.00[d]	0.00[c]	0.00[b]	0.00[c]	0.00[c]	0.00[c]	0.00[c]
500	2.50±2.73[b]	2.50±2.73[b]	2.50±2.73[cd]	5.00±3.96[c]	15.0±6.43[b]	30.0±15.19[b]	42.50±23.29[b]	61.3±32.07[b]	70.0±32.45[b]
1000	10.0±12.39[ab]	36.3±35.91[ab]	41.3±33.03[bc]	48.8±32.71[b]	82.5±37.42[a]	83.8±36.47[a]	92.5±34.93a	93.8±34.71[a]	95.0±34.64[cd]
2000	2.50±4.47[ab]	41.3±21.25[b]	83.8±32.45[a]	97.5±35.19[a]	100±35.77[a]	100±35.77[a]	100±35.77[a]	100±35.77[a]	100±35.77[a]
4000	6.30±4.76[ab]	25.0±10.47[ab]	82.5±35.93[a]	86.3±36.50[ab]	88.8±35.73[a]	93.8±33.94[a]	98.8±35.73[a]	98.8±35.73[a]	98.8±35.73[a]
8000	26.3±17.43[a]	45.0±19.28[a]	66.3±26.56[ab]	85.0±33.47[ab]	96.3±35.23[a]	100±35.77[a]	100±35.77[a]	100±35.77[a]	100±35.77[a]

Means sharing similar letters within column are not significantly different (Tukey test, P = 0.01); Concent, concentrations.

Supplementary Table SII.- Probit analysis for percent mortality of engorged ticks by the application of different concentrations of *Heterorhabditis* sp. JMO71.

Days	LC_{10}	LC_{50}	LC_{90}	95% CI for LC_{50}		X^2 value	P value	Regression equation
				lower	upper			
1	4306.4	12152.1	19997.8	9877.8	166601.6	46.9	<0.001	Y=-1.98 + 0.0001X
2	1799.8	8102.9	18005.6	6558.4	10975.6	61.5	<0.001	Y=-1.05 + 0.0001X
3	2832.9	3071.3	8977.5	2521.1	3669.1	125.1	<0.001	Y=-0.67 + 0.0002X
4	1961.2	2018.9	5999.0	1620.3	2416.4	137.5	<0.001	Y=-0.65 + 0.0003X
5	1471.9	1092.6	3657.2	801.8	1364.4	122.8	<0.001	Y=-0.55 + 0.0004X
6	440.4	840.2	2120.8	680.9	995.2	106.3	<0.001	Y=- 0.84+ 0.001X
7	71.8	619.1	1309.9	520.5	717.8	96.9	<0.001	Y=-1.15 + 0.002X
8	207.1	500.8	1208.8	401.2	600.5	84.4	<0.001	Y=-0.91 + 0.002X
9	263.8	441.1	1146.1	334.9	540.4	81.1	<0.001	Y=-0.80 + 0.002X

Y, mortality (%), X, days.

Supplementary Table SIII.- Survival time for percent mortality of engorged ticks by the application of different concentrations of *Heterorhabditis* sp. JMO71.

Concentrations	ST50 ± SD	95% CI		X^2 value	P value	Regression equation
		Lower	Upper			
0	-	-	-	-	-	-
500	7.5 ± 2.605	7.1	7.8	61.2	<0.001	Y = 2.88 - 0.38X
1000	3.5 ± 2.668	3.2	3.8	178.1	<0.001	Y= 1.32 - 0.37X
2000	2.3 ± 0.768	2.1	2.4	404.2	<0.001	Y= 2.94 – 1.30X
4000	2.6 ± 1.814	2.4	2.9	313.7	<0.001	Y= 1.47 – 0.55X
8000	2.2 ± 1.629	1.9	2.4	245.9	<0.001	Y= 1.34 - 0.61X

Y, mortality (%), X, concentrations.