







Table 1. Concentration- mortality response of spinetoram and insecticide mixtures against *S. litura* (2<sup>nd</sup> instar larva, leaf smear method\*\* on castor leaf disc and residue contact bioassay method on glass surface)

Insecticide (Trade name)	HAF	LC values (%)		Relative toxicity (RT*)		Heterogeneity $\chi^2$	Regression equation Y = a + bX	Fiducial limit at LC <sub>50</sub> (%)	
		LC <sub>50</sub>	LC <sub>90</sub>	RT <sub>50</sub>	RT <sub>90</sub>			lower	upper
Spinetoram (Radiant 11.7 SC)	48	0.0103	0.0384	-	-	2.24	Y = 3.104 + 0.506X	0.0082	0.014
	72	0.0093	0.0308	1.00	1.00	2.23	Y = 3.048 + 0.556X	0.0074	0.0123
	84	0.0085	0.0259	1.00	1.00	1.41	Y = 3.327 + 0.500X	0.0066	0.0114
	96	0.0077	0.0304	2.91	10.20	0.99	Y = 3.333 + 0.512X	0.0062	0.0107
residue contact	24	0.0062	0.0117	1.00	1.00	2.66	Y = 3.201 + 0.65X	0.0049	0.0077
	36	0.0055	0.0115	-	-	2.40	Y = 3.565 + 0.565X	0.0041	0.0070
	48	0.0049	0.0172	-	-	2.74	Y = 3.629 + 0.588X	0.0036	0.0063
	84	0.0017	0.024	5.00	1.01	0.29	Y = 3.671 + 0.470X	0.0009	0.0029
Chlorantraniliprole 9.3+ lambda-cyhalothrin 4.6 ZC (Ampligo 13.9 ZC)	96	0.0009	0.0109	26.7	28.46	0.40	Y = 3.662 + 0.580X	0.0005	0.0016
	60	0.0096	0.0483	4.4	4.60	2.39	Y = 3.168 + 0.607X	0.0070	0.0131
	72	0.0066	0.0281	4.4	2.5	4.54	Y = 3.357 + 0.645X	0.0049	0.0089
	84	0.0058	0.0250	5.07	5.0	3.89	Y = 3.540 + 0.615X	0.0042	0.0079
Cypermethrin 10+ indoxacarb 10 SC (Actor 20 SC)	72	0.0035	0.0201	2.66	1.53	4.45	Y = 3.619 + 0.475X	0.0025	0.0050
	84	0.0029	0.0168	2.93	1.0	2.79	Y = 3.789 + 0.465X	0.0019	0.0041
	24	0.0040	0.0137	1.55	1.0	0.25	Y = 3.860 + 0.563X	0.0028	0.0051
	96	0.0236	0.3103	1.00	1.00	0.45	Y = 3.911 + 0.267X	0.0148	0.0650
Flubendiamide 24+ thiacloprid 24 SC (Belt expert 480 SC)	60	0.0618	0.2223	1.00	1.00	0.45	Y = 2.983 + 0.448X	0.0472	0.0976
	72	0.0300	0.0842	1.00	1.00	0.55	Y = 3.088 + 0.631X	0.0242	0.0371
	84	0.0294	0.0826	1.00	1.00	1.18	Y = 3.110 + 0.631X	0.0236	0.0363

\*Mean initial wt. = 0.0147g (5 d old), n = 25; Laboratory conditions: Temp. = 26°C, R.H. = 75% (11:00 AM); \*RT = Relative toxicity = LC of the least toxic insecticide/LC value of the candidate insecticide











