

SIDE-EFFECTS OF PESTICIDES USED TO CONTROL TOMATO PESTS IN BRAZIL ON THE EGG PARASITOID *TRICHOGRAMMA PRETIOSUM* RILEY (HYM.: TRICHOGRAMMATIDAE)

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We evaluated the side-effects of (g a.i. L⁻¹ of water) Bacillus thuringiensis (0.05), chlorantraniliprole (0.04), etofenprox (0.18), fenpropathrin (0.45), triflumuron (0.144), azoxystrobin (0.15), diphennoconazole (0.125), tebuconazole (0.2), fluazifop-p-butil (2.5), and metribuzin (2.4), recommended to control pests in tomato crops in Brazil, adults and immature stages of Trichogramma pretiosum Trichogrammatidae). Eggs of the factitious host Anagasta kuehniella (Lep.: Pyralidae) were used in the bioassays following UV-killed. For adults bioassays UVkilled host eggs were glued to blue paper cards and dipped in the pesticides aqueous solutions and in distilled water (control) for five seconds. One, 24, and 48h after treatment, the host eggs were exposed to parasitism for 48h and maintained at 25 ± 1°C, RH of 60 ± 10% and L:D 12:12 h photoperiod, until the emergence of F₁ offspring. In the immature bioassays, untreated host eggs were exposed to parasitism for 48h. Then, host eggs containing the parasitoids during the egg-larvae, pre-pupae, and pupae immature stages (0-48h, 72-120h, and 168-216h, respectively) were treated by dipping, as mentioned before, and maintained under controlled conditions, until the parasitoids emergence. All evaluated pesticides affected negatively the parasitism capacity of adults; however, fenpropathrin was the most harmful compound, regardless of the moment that adult females kept contact with treated eggs. In the immature bioassays azoxystrobin, B. thuringiensis, diphenoconazole, fenpropathrin, fluazifop-p-butil, metribuzin, and tebuconazole were harmless. Triflumuron showed to be toxic when applied on host eggs containing the egg-larvae period. Chlorantraniliprole and etofenprox were slightly harmful to T. pretiosum.