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SELECTIVE EFFECT OF DIFLUBENZURON To *Trichogramma pretiosum* RILEY, 1879 (HYMENOPTERA: TRICHOGRAMMATIDAE)

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ABSTRACT

Selective products are highly desirable in integrated pest management (IPM). In order to evaluate the effect of the physiological insecticide/acaricide diflubenzuron on adults of *Trichogramma pretiosum,* this study was carried out at Embrapa Cotton, Campina Grande PB, Brazil, at 25.0 ± 2.0ºC, 70.0 ± 5.0% RH and 12h photophase.
Females of *T. pretiosum* were subjected to parasitism (5 days) of eggs (*Corcyra cephalonica*) treated by immersion (5s). One female was used by test tubes (7.5cm x 1.2cm), containing honey (100%) and cardboard (0.30cm^2) with eggs treated by immersion (5s). Four concentrations (25, 50.75 and 100%) of Diflubenzuron (60 g a.i. 150 L H2O-1) and one control (distilled water) were tested. The concentration of 100% was the highest recommended in the package insert. The design was completely randomized, with five treatments and ten replications. Regression analysis was performed and the means were compared using Tukey's test (*P≤0.05*). The concentrations were submitted to toxicological classification (IOBC/WPRS) and corrected mortality (Mc) (Abbott) and total effect (E%)=100-((100-Mc)x(R1)); R1 = effect of the insecticide on the % emergence of females + males. The concentrations of diflubenzuron did not differ in terms of the number of parasitized eggs and emerged individuals, ranging from 14.50 to 21.50 and from 12.0 to 19.70, respectively. The percentage of emergence varied by 20.03%, however, there was only a significant difference between the concentration of 25% with those of 75 and 100%. The quantitative variations for the number of females and males were low, with significant differences between the control and the concentration at 25% (females) and the concentrations of 25 and 50% and 100% (males). The sex ratio did not differ between the concentrations, ranging from 0.66 to 0.89. The number of deformed individuals ranged from 0.20 to 0.70, but did not differ statistically. At the concentrations studied, diflubenzuron was considered innocuous.

Keywords: Benzolurea. Physiological Insecticide/Acaricide. Parasitoid.

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