

P195*Effects of fipronil on the stingless bee *Melipona scutellaris****Roberta Nocelli**, Clara Lourenço, Andriago Pereira, Felipe Nominato, Osmar Malaspina

The objectives of this study were to evaluate the effects of sublethal doses of fipronil to foragers of *M. scutellaris* through behavioral tests of locomotor activity and the Proboscis Extension Reflex (PER). Behavioral tests assessing sublethal effects of pesticides to bees through the capacity of orientation / mobility, olfactory learning and memory has been increasingly applied. Tests of REP and locomotion are considered measurable and reliable and reproduce activities performed by foragers in their search for food. 30 bees were used for each experimental group for performing each test. Bees received topical treatment with 1ul solution at concentrations 0.041 ng and 0.082 ng ai/bee and oral 0.0011 ng and 0.0022 ng by uL diet of fipronil . Locomotor activity was tested in a wooden box with six divisions forming streaks of 50cm . After 24 hours of exposure bees were individually placed at the entrance and the time it took for go the route of 50cm recorded. For PER test bees were placed in plastic tubes with a hole in the bottom. Sucrose solutions at 25%, 50% and 75% were provided for ten seconds interspersed with water, and the responses were recorded. Comparing the average lap speed in the groups treated with doses bees and sublethal concentrations of fipronil and control, through the Kruskal-Wallis test, there was a statistically significant difference in both the topical treatment as the oral treatment. The same results were obtained for the REP test, with significant differences between the control to topical and oral treatment groups. These results showing that sublethal doses and concentrations of the fipronil cause changes in the behavior of foragers *M. scutellaris*, affecting the locomotor activity and the capacity to recognize nectar resources of these bees.