

P029*Interference of insecticides in the testes of Apis mellifera***Maria Izabel Camargo-Mathias**, Jane Moreira, Karim Furquim, Jose Lino-Neto

Recent research is uncovering diverse sub-lethal effects of pesticides on bees. *Apis mellifera* is one of the most important pollinators of agricultural crops and despite the large amount of papers describing various aspects of the biology and behavior of this species, the role of males has been neglected, since they did not participate in the daily tasks of the colony. In order to analyze if sublethal doses of thiatometoxan have affect on testes and geminative cells of *A. mellifera*, white-eye pupae were treated with the insecticide thiamethoxam 0.025% of DL50 established by Tavares D. (2011). Twenty white-eyed pupae taken from healthy hives in Department of Biology apiary, UNESP, Rio Claro, São Paulo, Brasil. They were transferred to sterile polystyrene plates, containing thiamethoxan diluted in distilled water. Ten pupae of white-eyed males had their abdomen immersed for 5 minutes in the thiamethoxan according to R.O. Drummond et al., 1973 and 10 males controls had his abdomen immersed in water for 5 minutes. After exposure pupae were kept in B.O.D for 24 hours and their testes dissected according to histology technique. The results indicate that thiametoxan penetrated the testes capsule causing tissue disorganization and changing the thickening between cysts, disruption of testicular capsule tissue and showing the presence of pyknotic nucleus in spermatocytes. This insecticide can alter spermatogenesis in bees, which would lead to alterations in the processes of reproduction of these insects. Other products with insecticide function are the subject of studies in the Biology Department of UNESP/ Rio Claro, SP, Brasil and the results will be compared. Studies in general showed different results in males of stingless bees when they are treated with natural product (like neem), since these products do not promote morphological changes in testis testes cells.