

ASSESSMENT OF INSECTICIDE IMIDACLOPRID + BETACYFLUTHRIN TO CONTROL *CAMPONOTUS* *RUFIPES* (HYMENOPTERA, FORMICIDAE)

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Ants are social insects that can be found almost in every terrestrial environment around the world. As in natural environment, the artificial environments are excellent places to install nests, but when installed in human habitations they are considered urban pests, because of the inconvenience caused to human population, as potential pathogens vectors and visual problems. Among the species of ants the Carpenter ants *Camponotus rufipes* has been highlighted by the increased occurrence in homes both in internal and external environments. Aiming to reduce these ant problems, a trial study was conducted to evaluate the knockdown effect and effectiveness of Temprid® SC (Imidacloprid 21% + Betacyfluthrin 10.5%) against carpenter ants in laboratory conditions. The experiment was developed at the Bayer Research and Innovation Center in Paulínia, São Paulo, Brazil in April 2010. The temperature was 25°C ± 2, relative humidity 60 ± 5% and photoperiod of 12 hours. Imidacloprid 21% + Betacyfluthrin 10.5% dilution was 4 ml per liter of water and then applied at a coverage flow rate of 50 ml/m² on tile surfaces. The tiles were infested with carpenter-ants after surface was dry. Each treatment had four replications in a total of 40 specimens. Ants were exposed during 20 minutes on the surface and during the exposure period, knockdown effect was quantified each 5 minutes, and after the exposure period the ants were kept in a contamination free environment with available food and water. Efficacy assessment was measured 24 hours after exposure of the ants on treated tile surfaces. The knockdown result at the end of 20 minutes was 100%, and it was kept even after 24 hours. The conclusion is that Imidacloprid 21% + Betacyfluthrin 10.5% can be recommended for *C. rufipes* control.

Key Words Ants, urban pests, environment control, carpenter ant, Temprid® SC.