

# A LABORATORY COMPARISON OF TWO RESIDUAL INSECTICIDE PAINTS AS CONTROL AGENTS FOR THE COACKROACHES (DYCTIOPTERA: BLATTIDAE)

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*Periplaneta americana* is one of the most important problems in Spanish Mediterranean Coast cities so, it must make periodic insecticide treatments in sewers of these cities.

Most formulates that are using now for their control have relatively low persistence and this forces to increasing the treatments frequency. Furthermore, most of the active matters used are neurotoxic insecticides that cause important environmental problems.

Trends of *P. americana* integrated pest control are direct to establish control programmes that reduce toxicologic and environmental risks using more specific insecticides, formulated with more residual power and with localized application technics.

In this way, The “Laboratorio de Entomología y Control de Plagas, Universidad de Valencia” in collaboration with “Industrias Químicas INESBA S. L.” has studied the possibility of design insecticide paints with high residual power for using against *P. americana* in sewers.

Paints are formulated including an IGR (flufenoxuron) and a pyrethroid (cypermethrin) so, the final product is effective against all development stages. Although efficacy of these two active matters combination has been studied for *Blattella germanica* and *Blatta orientalis*, there is not any notice about its effectiveness for *P. americana* control. Moreover, all studies made until now used suspension concentrates that are fastly absorbed for sewer walls. The use of acrylic or vinilic paints without this problem increases the residual power of formulates.

Results corresponding to the first phase of this study are presented, it consists in laboratory efficacy analysis of four insecticide paints against *P. americana*. This results show that flufenoxuron and cypermethrin combination increases mortality and reduces exposure time necessary for killing coackroaches. Also, the flufenoxuron presence results determinant in its efficacy and residual power because it kills insects by interference with chitin formation.