

## Susceptibility status of German cockroaches, *Blattella germanica* (L.) to carbamate and pyrethroid insecticides within surface contact method in Shiraz city, Iran

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**Abstract:** German cockroaches (*Blattella germanica*) is one of the most important pests that have extensively pervaded into human dwellings and hospitals. Two class of insecticides named carbamate and pyrethroids were examined on two strains of cockroaches (dormitory (D) and hospital (H)) through the surface contact method. The obtained lethal doses of Carbaryl (WP 85%) were much higher than the standard dose for both strains. In the case of cyfluthrin WP 10%, the fatal doses were extracted 2.765 and 3.265 mg/m<sup>2</sup> for D and H strains whereas the suggested dose was 3.768 mg/m<sup>2</sup>. The toxicity dosages of Lambda-cyhalothrin (WP 10%) were 1.413 and 3.265 mg/m<sup>2</sup> for D and H strains respectively. Both strains have exhibited the tolerance to them. H and D strains were tolerant to pyrethroids. Notably, pyrethroids should be rotationally used with others insecticides relating to integrated pest management (IPM).