

Detection of insecticidal resistance against various insect pests in vegetable crops at Raipur

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ABSTRACT

Bioassay methods such as leaf dip and larvae dip were used in the laboratory conditions for testing lethal dose of insect pests conducted at laboratory of department of entomology, IGKV, Raipur (C.G.) during 2009-2010. At least five dilutions for each of the selected insecticides were tested using different methods. In each method and insecticide at least 10 larvae of 2-3rd instars were released on each dilution in 3 replications along with untreated control. The results shown that the *Helicoverpa armigera* population was maximum LD₅₀ value to Chlorpyrifos (0.633 µg/lit) followed by *Spodoptera litura* population LD₅₀ (0.576 µg/lit) and lower value for *Leucinodes arbonalis* LD₅₀ (0.503 µg/lit) and the *Plutella xylostella* population showed maximum LD₅₀ value to Cypermethrin (0.810 µg/lit) and lower LD₅₀ value (0.246 µg/lit) for *Trichoplusia ni*. Therefore, *H. armigera* showed higher resistance to Chlorpyrifos and *P. xylostella* showed higher resistance towards Cypermethrin.

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