

A CASE STUDY

# Toxicity of newer insecticides against *Leucinodes orbonalis* (Guen.)

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Efforts were made to study the  $LC_{50}$  values of newer insecticide against brinjal shoot and fruit borer (*Leucinodes orbonalis*) collected from different location of Vidarbha viz., Akola, Amravati, Yavatmal, Washim and Buldhana by using direct spray method carried out in the toxicology laboratory, Department of Agricultural Entomology, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola during 2011-12. Five insecticides viz., rynaxypyr 20 SC, flubendiamide 480 SC, emamectin benzoate 5 SG, indoxacarb 14.5 SC and spinosad 45 SC were tested for their toxicity to third instar larvae of *Leucinodes orbonalis* (Guen.). The resultant toxicity in terms of  $LC_{50}$  values obtained for insecticide against different strain were ranged for rynaxypyr (0.127-0.157), flubendiamide (15.551-23.046), emamectin benzoate (0.277-0.351), indoxacarb (2.016-2.457) and spinosad (3.094-4.940) ppm. Rynaxypyr 20 EC and emamectin benzoate 5 SG were found most effective amongst the insecticides tested. Thus, rynaxypyr and emamectin benzoate could be used for management of *Leucinodes orbonalis* and to delay the development of insecticide resistance.

**Key words :** Insecticides, *Leucinodes orbonalis*,  $LC_{50}$ , Toxicity

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