

# **Influence of Water Quality on the Efficacy of Certain Insecticides on *Spodoptera litura* Fab. (Noctuidae: Lepidoptera)**

**S V D Divya, P V Krishnayya, T Madhumathi, V Manoj Kumar and P Prasuna Rani**  
Department of Entomology, Agricultural College, Bapatla 522 101, Andhra Pradesh

## **ABSTRACT**

A laboratory experiment was conducted during 2014–2015 in the Department of Entomology, Agricultural College, Bapatla, Andhra Pradesh to study influence of water quality on the efficacy of selected insecticides on larvae of *Spodoptera litura*. The results revealed that highest per cent mean larval mortality (54.7-58.0%) was observed when water with neutral pH (7.03) was used compared to that of pH 5.04 (52.7-56%) and pH 9.01 (50-52%) indicating greater efficacy of the insecticides at optimum pH. The per cent mortality decreased gradually from 58.7 to 52.7% and 56 to 50% with increasing solvent water EC 1.01-3.04 dS m<sup>-1</sup> and hardness 150-450 ppm, respectively indicating decrease in insecticidal efficacy on increasing the solvent water EC and hardness. Among the collected water samples when used as solvent in the preparation of the insecticidal spray solutions rain water was proved to be highly efficacious followed by canal, bore-well and sea water.

**Key words :** Pesticide efficacy, *Spodoptera litura*, Water quality.