

ACUTE TOXICITY TESTS OF LANNATE[®] INSECTICIDE
ON THREE COMMERCIALLY IMPORTANT FINGERLINGS
OF THE VISAYAN REGION, CENTRAL PHILIPPINES

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ABSTRACT

The study examines the acute toxicity (48H) of Lannate[®] insecticide on three species of fingerlings (*Oreochromis sp.* (freshwater), *Lates calcarifer* (brackishwater), and *Siganus fuscegens* (marine)) with different osmoregulatory capabilities. After two (2) weeks acclimatization period in the laboratory, static bioassays were conducted to determine the acute toxicity tests. Three trials were conducted for each species to get the mean mortality. Observations were done at 3, 6, 12, 24, 48 hours after exposure. After 48 hours of exposure the LC₅₀ values of *Oreochromis sp.* was 8.60 ppm, 6.26 ppm for *Lates calcarifer*, and 1.43 ppm for *Siganus fuscegens*. Changes in breathing rate were observed. *Siganus fuscegens* has the highest average breathing rate (74/min). Lannate[®] concentration and exposure time have significant effects on the mortality, disturbed behavior, and faster breathing rate of the fingerlings. For all fish species, mortality increased with concentration. Temperature, dissolved oxygen (DO), and pH measured before and after the experiment were slight. Among the three species, *Siganus fuscegens* was the most sensitive to Lannate[®]. The recent use of Lannate[®] insecticide in killing nearshore fish species and the result of this study, should served as a wake-up call to regulate the usage of such insecticide at the barangay level.

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