

**THE HALF-LIVES OF BIOLOGICAL ACTIVITY AND EFFECT OF SOME  
PESTICIDES IN FRESH WATER FISH *LABEO ROHITA***

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**ABSTRACT :** In the absence of analytical methods, the half-lives of biological activity of pesticides can be estimated by bioassays. To determine the half-lives of biological activity of pesticides to fish, static bioassays were conducted in the laboratory with ten different formulations of pesticides using *Labeo rohita* as a bio-indicator. The half lives of biological activity for ten different pesticides in fresh water at pH 7.5 and 27°C, ranged in between 4.6 days to 11.8 days. The half life of biological activity of Sumithion 50% EC was only 4.6 days. In contrast, Dimecron 50% EC degraded very slowly and its half-life of biological activity was about 11.8 days. Sumithion 50% EC, Padan 50% SP, EPN 45% EC and Diazinon 10 G degraded in less than five to seven days indicating that these pesticides are desirable for rice fish culture. Contamination by pesticides with long term residual toxicity in water may eventually cause high levels of fish mortality.

**Key Words :** Biological activity, bioassays, pesticides, residual, toxicity.