

IMPACT OF QUINOLPHOS ON DNA AND RNA CONTENT OF THE FRESHWATER FISH *LABEO ROHITA* (HAMILTON)

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ABSTRACT

Contamination of water by pesticides, either directly or indirectly, can lead to fish kills, reduced fish productivity, or elevated concentrations of undesirable chemicals in edible fish tissue which can affect the health of humans consuming these fish. The objective of the present study to investigate the toxic effect of quinolphos on DNA and RNA levels of Freshwater fish *Labeo rohita*. The fish were exposed to organophosphorus pesticides Quinolphos pesticide 25% EC to 96 hours LC50 technical lethal (2.826 mg L^{-1}), Technical sublethal ($1/10^{\text{th}}$ of 96 hr LC50 value, 0.2826 mg L^{-1}), 25% EC Lethal (2.218 mg L^{-1}) and 25% EC sublethal ($1/10^{\text{th}}$ of 96 hr LC50 value, 0.221 mg L^{-1}) concentrations for 8 days. The results observed in the present study reveals that quinalphos caused variability in the nucleic acid content in different tissues and the degree of variability by the quinalphos technical was less compared to 25% EC and was found to be dose dependent.

KEYWORDS: Pesticides, Chemicals, Fish, Nucleic Acid, Quinolphos