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ENDOSULFAN, A GLOBAL PESTICIDE: A REVIEW OF ITS TOXICITY ON VARIOUS ASPECTS OF FISH BIOLOGY

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ABSTRACT

Pesticides are used in agricultural fields to regulate pest population. These pesticides are usually toxic to non-target organisms like fish. Three of the main classes of pesticides are organochlorines, organophosphorous and carbamates. Organochlorines are the most commonly found pesticides in the environment including water, sediments, atmospheric air and biotic environment. Endosulfan is a broad spectrum organochlorine pesticide which has been commercially in use for decades to control insect pest. It is primarily used to kill insects and mites on crops including fruits, vegetables and cereal grains as well as ornamental shrubs, vines and trees. Endosulfan passes via surface runoff into natural waters, where it is accumulated in different organisms living in water, especially in fish, thus making it vulnerable to several prominent effects. Endosulfan is known to inhibit acetylcholinesterase, cause behavioural, neurological, oxidative, endocrine and other effects. The present review analyses the various effects of Endosulfan in fish.

KEYWORDS: Endosulfan, Fishes, Toxicity