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In-vivo Toxicity Assessment of the Garlic Juice Extract (Allium sativum) in Juvenile Hybrid Grouper (Epinephelus fuscoguttatus × Epinephelus lanceolatus)

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Abstract
The toxicity of garlic juice extract in juvenile hybrid grouper was evaluated via bath and oral administration. A total of 280 fish, each with an average weight of 20 ± 5 g, were evenly distributed among 28 glass aquaria. This distribution was designed to represent seven test concentration groups, each implemented in duplicate. The fish were immersed in freshly prepared garlic juice extracts at 0, 500, 600, 700, 800, 900, and 1,000 ppm concentrations. Meanwhile, pellets containing 0, 20, 40, 60, 80, and 100% garlic juice extract were administered for oral exposure. The median lethal concentration of garlic juice extract following bath immersion was recorded at 993.11 ppm after 96 hr. Besides, there was no mortality in all groups exposed to garlic juice extract orally, indicating that the extract has a shallow effect on juvenile hybrid groupers when ingested. © Universiti Putra Malaysia Press.

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Allium sativum; fish; garlic; hybrid grouper; toxicity

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