

عنوان مقاله:

Toxic effect of euphorbia hirta plant to fingerlings of labeo rohita (hamilton) in different culturing conditions

محل انتشار:

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خلاصه مقاله:

The piscicidal activity of aqueous and acetone latex extracts of Euphorbia hirta plant which is belong to Family: Euphorbiaceae against fingerlings of Labeo rohita (Hamilton) in laboratory and cemented pond conditions was investigated. Toxicity of aqueous and acetone latex extracts of this plant was time as well as dose dependent against fingerlings of Labeo rohita. The aqueous latex extracts of this plant is least effective in comparison to acetone latex extracts of Euphorbia hirta plant against the fingerlings of Labeo rohita. There was significant ($P < 0.05$) negative correlation between LC values and exposure periods. Thus, the LC50 values of acetone latex extracts of Euphorbia hirta plant decrease from 2.11 mg/L (24h) > 1.47 mg/L (48h) in laboratory conditions and 6.38 mg/L (24h) > 5.75 mg/L (48h) in cemented pond condition against fingerlings of Labeo rohita. In case of aqueous latex extracts of Euphorbia hirta plant the LC50 values decrease from 6.37 mg/L (24h) > 5.59 mg/L (48h) in laboratory conditions and 26.29 mg/L (24h) > 25.52 mg/L (48h) in cemented pond condition against fingerlings of Labeo rohita. The dose of aqueous extract is so high, that its purification is necessary to develop a new and effective herbal piscicide. The acetone latex extracts of Euphorbia hirta plant is 4-5 time more toxic than the aqueous latex extracts of this plant against the fingerlings of Labeo rohita.

کلمات کلیدی:

Euphorbia hirta , Labeo rohita , Latex , Aqueous , Acetone , Fingerlings

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