

عنوان مقاله:

Ecotoxicological Effects of Imidacloprid and Lambda-Cyhalothrin (Insecticide) on Tadpoles of the African Common (Toad, *Amietophrynus Regularis* (Reuss, 1833) (Amphibia: Bufonidae)

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خلاصه مقاله:

Agriculture is the main activity carried out in Cameroon and pesticide use is believed to be a common rule for its success. Most of the farms are situated close to water bodies, thus constituting a potential risk to non-target aquatic organisms. Declines of amphibian populations have been a worldwide issue of concern for the scientific community during the last several decades. The aim of this study was to assess the effects of an insecticide used by local farmers in Buea on amphibians. Parastar 40WP® which is constituted of imidacloprid + lambda-cyhalothrin a commonly used insecticide was applied on tadpoles of the African common toad *Amietophrynus regularis* (Reuss, 1833) in a static renewal experiment. The acute toxicity test was carried out after a range finding test from which seven test concentrations were selected. These concentrations were 0.0025 mg/l, 0.005 mg/l, 0.01 mg/l, 0.05 mg/l, 0.1 mg/l, 0.5 mg/l and 0.2 mg/l. Signs of toxicity such as hyperactive symptoms, loss of balance, motionlessness and death were recorded. A varying degree of mortality (dose-dependent) was noticed during the test. On the contrary, no such toxicity signs and mortality occurred in the control, indicating that they were caused by the test substance. The 24h LC50 was 3.66mg/l, which is less than the recommended application dose (125 mg/l). Products constituted of imidacloprid and lambda-cyhalothrin should therefore be handled with care and far from water bodies because of their potential to cause harm to non-target aquatic biota

کلمات کلیدی:

Acute; Amphibians; Insecticide; Tadpoles; Dose-dependence

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