

Impact of Diuron contamination on blood cockles (*Tegillarca granosa* Linnaeus,1758)

ABSTRACT

Examination of the impact of Diuron contamination on blood cockles (*Tegillarca granosa*) was conducted by combining field screening at three sampling events and a toxicity test. Diuron was extracted using the liquid–liquid extraction (LLE) technique and analyzed using HPLC-UV. The median lethal concentration (LC50) of Diuron on *T. granosa* was tested under a 72-h exposure. Diuron in water samples ranged from not detected (ND) to 3910 ppb, which was the highest concentration detected in samples after the irrigation water was discharged from the paddy plantation. Diuron was not detected in sediment samples. Mortality of *T. granosa* ranged from 4.74 to 38.33% with the highest percentages recorded after the release of the irrigation water. The LC50 value of Diuron was 1.84 ppm. This study suggests that irrigation water from paddy plantation that drifts to coastal areas containing Diuron harms *T. granosa* at the study area.

Keyword: Agriculture; Biocide; Pollution; Acute; Marine; Bivalve