



Effects of herbicides (Atrazine) on the certain blood parameters of *Clarias batrachus*

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Received : November 2012
Accepted : March 2013
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Abstract : *The toxic effect of Atrazine, one of the commonly used herbicides, has been examined in the Magur (Clarius Batrachus) by recording changes in its hematological parameters. The fishes were treated with Atrazine at the dose of 1mg/L for four weeks. At the end of every week their blood sample were collected for haematological study such as total RBC and WBC count, differential count of WBC and Hb%. Due to the exposure, RBCs count were decreased down constantly to 8%, 15%, 29.5% & 43% during 1st, 2nd, 3rd & 4th week respectively when compared to control. Likewise, Hb%*

declines significantly on treatment with ATR by 1%, 15%, 19% & 32% respectively. This decrease in Hb% and RBCs count may be due to alteration in pH of water which ultimately affects the oxygen combining capacity of Hb. Similarly, leucocytes also shows quite significant alteration in their values when compared to normal, but white blood cells count increased from normal in first week by 2% showing immunological response and then gradually decreased down by 11%, 20% and 33% in respective weeks due to acute exposure.

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Key Words: *Clarias batrachus*, Atrazine, RBC, WBC, Haemoglobin (Hb).

Introduction :

Atrazine (2-Chloro-4-ethylamine-6-isopropyl-amino-1,3,5-triazine) is a chlorinated S-triazine group of herbicides, one of the commonly used herbicide to control broad leaf weeds in the field of crops, corn, sugarcane, including green vegetables (Cui *et al.*, 2002). It enters the aquatic ecosystem through runoff or directly through careless application in such environment. After entering into the water bodies, it affects the aquatic organisms including fresh water fishes such as