

Effect of Lethal and Sub-lethal Concentrations of Tobacco (*Nicotiana Tobaccum*) Leaf Dust Extract on Weight and Hematological Changes in *Clarias Gariepinus* (Burchell)

***OMONIYI, I.; AGBON, A O; SODUNKE, S A**

Department of Aquaculture & Fisheries Management, University of Agriculture,
P.M.B. 2240, Abeokuta, Nigeria

ABSTRACT:

Lethal and sub-lethal bioassays on *Clarias gariepinus* were conducted to evaluate the toxicity of tobacco (*Nicotiana tobaccum*) leaf dust on weight gain and haematological indices of *Clarias gariepinus* (mean weight $10.5 \pm 0.70g$) in glass aquaria with aeration system. The concentrations used during the lethal exposure are: 2.00, 1.00, 0.50, 0.25g/l and a control (0.00g/l); while the concentrations of the toxicant used during the 21-days sub-lethal exposure were 0.30, 0.15, 0.10, 0.05g/l and a control (0.00g/l). The 48-h LC_{50} estimated by probit analysis during acute exposure was found to be 626.0 mg/l. The results obtained from the sub-lethal exposure showed that there was a progressive decrease in weight of fish as the concentration of the toxicant increased. Also, haematological indices indicated that the fish became anaemic and the severity of this condition was directly proportional to the tobacco dust concentrations.