Effect of Euphorbia hirta leaf extracts on histopathology of juvenile Clarias gariepinus

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Abstract

This study investigated the effect of Euphorbia hirta leaf extracts on the gill and liver tissues of Clarias gariepinus juveniles. The experiment was carried out at the University Fish Farm, Federal University of Agriculture, Abeokuta. The fishes were acclimatized for one week and were fed twice daily at the rate of 3% body weight and water was siphoned on daily basis. A total of 300 C. gariepinus juveniles were used for the study. The experiment was carried out using 5 treatments at concentrations of 0g/l, 1.25g/l, 2.5g/l, 3.75g/l and 5g/l; and in replicates. The fishes were exposed to the leaf extract for a period of 96 hours. The result showed significant difference (p<0.05) in mortality rate as it decreases with decreasing extract concentration. The histological result revealed severe lesion on the gills of fish exposed to varying concentrations of the leaves extract. However, severity decreases with lower concentration of the leave extract. More so, in the liver, severe fatty degeneration was observed and the severity of this degeneration decreasing with decrease in the extract concentration. The result suggested that E. hirta have adverse effect on the juvenile Clarias gariepinus and should be disposed carefully.

Key words: Euphorbia hirta, Lesion, Concentration.