RESEARCH NOTE

The Effect of Moringa oleifera Leaf Dust on Selected Biochemical Parameters of Hybrid Catfish

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Abstract

The study was conducted to ascertain the effect of sub-lethal concentrations (0.00, 0.04, 0.08, 0.12 and 0.16mg/L) of Moringa oleifera leaf dust after the 21-day experimental period on selected biochemical

parameters of hybrid catfish (Clarias gariepinus X Heterobranchus bidorsalis) with mean length (28.39 ±

0.33cm) and weight (99.34 \pm 2.48g). The experiment was conducted using static renewable bioassay system

with triplicate experimental set-up. At the end of the experimental period, the blood, liver and kidney were

obtained from the sacrificed fish. These tissue/organs were prepared for the selected biochemical

parameters (uric acid, inorganic phosphorus, calcium, creatinine, urea, bilirubin, potassium and chloride)

using standard procedures. These parameters were assayed using the standardized procedures of available

commercial reagent kits. There were no significantly (p>0.05) difference in the tissue/organs mean

inorganic phosphorus, urea, bilirubin and potassium. However, calcium level were significantly different

(p<0.05) in fish exposed to the highest concentration of Moringa oleifera leaf dust. The kidney uric acid was

showed significant difference fish exposed to 0.12 and 0.16mg/L Moringa oleifera leaf dust. in kidney uric

acid compared to the control fish. The result suggested that the effect of Moringa oleifera leaf dust was mild

at the exposed concentrations where concentrations of 0.12 and 0.16mg/L revealed highest changes

observed.

Keywords: Health status, Fish, Medicinal plant

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