EFFECTS OF DIETARY SUNFLOWER (*Tithonia diversifolia*) LEAF EXTRACT ON GROWTH PERFORMANCE AND SERUM BIOCHEMICAL PROFILE OF AFRICAN CATFISH (*Clarias gariepinus*) FINGERLINGS

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ABSTRACT

This study investigated the growth performance and serum biochemical profile of *Clarias gariepinus* fingerlings. The fish were fed diets fortified with sunflower leaf extract (SLE) at 0.0 (positive control), 0.5, 1.0, 1.5 or 2.0 g/kg diet and the negative control diet containing 0.5 g synthetic antibiotic (A) /kg diet for 70 days. After the feeding trial, blood samples were collected from the fish for analysis of biochemical parameters using standard procedures. The data obtained were subjected to one-way analysis of variance and differences among means were established at $P < 0.05$. The weight gain, specific growth rate, nitrogen metabolism, and fish productivity index were significantly enhanced in fish fed SLE-based diets, compared to those fed the control diets. Higher protein efficiency ratio and lower feed conversion ratio were obtained in fish fed 0.5 – 1.5g SLE/kg diets, compared to those fed the control diets. The quadratic regression with respect to weight gain showed 1.13g/kg diet as the optimum inclusion level in *C. gariepinus*. The serum total protein, albumin, globulin, blood urea nitrogen and glucose were not altered significantly with dietary SLE. It could be concluded that sunflower leaf extract has growth-promoting property and its inclusion at 1.0g/kg diet is recommended for the optimum growth performance of *Clarias gariepinus*.

Keywords: *Clarias gariepinus*, sunflower leaf, growth performance, serum biochemistry