Potential Effect Of Zengebare Officinale Extract On Health, Treatment And Control Of Oreochromis Niloticus (L.) From Bacterial Infections.

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ABSTRACT

Three experiments were conducted to evaluate potential of using zengebare officinale extract as treatment to fresh water fishes from bacterial diseases. Also the use of ethanol-extracted from the medicinal plant, Zengebare officinale as a growth and immunity promoter for Oreochromis niloticus (L.) fingerlings. Fish (Average 12.33 g) were randomly distributed into four treatments; three replicates each at a rate of 15 fish per 140- L aquarium. Fish were fed one of the tested diets containing 0.0. 0.5 %, 1.0 %, or 1.5 % Zengebare officinale extract for 10 weeks. After the feeding trial, fish of each treatment were challenged by pathogenic Pseudomonas aeruginosa and Pseudomonas flourscence. and they were kept under observation for 10 days to follow up any abnormal clinical signs and the daily mortality rate. The growth-promoting influence of Zengebare officinale extract was observed on fish. The results showed that the maximum growth was observed at 1 % Zengebare officinale extract as compared to the control. No significant differences in fish survival were reported among the experienced treatments at (P>0.05), falling within the range of 93.3 - 100%. total protein, albumin, and globulin increased significantly (P<0.5) to the highest values at 1 % Zengebare officinale extract, as compared to the control. However, supplementation of Zengebare officinale extract did not significantly affect the albumin / globulin ratio (A/G). This present study showed that 1 % Zengebare officinale extract in Nile tilapia diets, increased the fish resistance to Ps. aeruginosa and Ps. flourscence, indicating the effective role of Zengebare officinale extract in disease prevention in tilapia. The intrapretonial inoculation (I/P) of (4 x 10^6) cells /ml of Ps aurgonsia caused mortality (90%) among Orechromis niloticus. while the treated Orechromis niloticus with ethanolic extract (turbines) of Zengebare officinale had mortality (40%). The intrapretonial inoculation (I/P) of (4 x 10^6) cells /ml of Ps flourscence caused mortality (100 %) among Orechromis niloticus, while the treated Orechromis niloticus with ethanolic extract (turbines) of Zengebare officinale had mortality (50%). Morphometric studies has been carried out crystalgrophy Imge processing soft ware (C.I.S.) to apply this tool for numerically and Imge evaluation of the effect of prepared neutral product antibiotics.

Key of words: Zengebare officinale, Nile tilapia, Medicine plant, Pseudomonas aeruginosa, and Pseudomonas flourscence.