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Effect of Ginger (Zingiber Officinale) And Garlic (Allium Sativum) Mixture on Growth Performance, Feed Utilization and Survival of Clarias Gariepinus Fingerlings

Authors : Maryam I. Abdullahi, Suleiman Aliyu, Armaya'u Hamisu Bichi

Abstract : The study was conducted at the University Fish Farm, Federal University Dutsinma. The aim of the study was to determine the effects of dietary supplementation of Allium sativum and Zingiber officinale mixture on growth performance, feed utilization and survival of C. gariepinus fingerling reared in tank system. The experimental setup comprised of four treatment (4) groups labeled as T1, T2, T3 and T4, each treatment replicated 3 times with ten (10) fingerlings in each replicate respectively. Treatment 1 contained 0.5% of Zingiber officinale and 0.5% of Allium sativum (ZO-AS: 1.0%), Treatment 2 contained 0.75% Zingiber officinale, and 0.75% garlic (ZO-AS: 1.5%) while T3 contained 1% ginger and 1% Allium sativum (ZO-AS: 2.0%) respectively. The experiment lasted for twelve (12) weeks (84 days). The survival rate ranges from 90% - 100%. With a higher Final Mean Weight (893.10) and Percentage Mean Weight (942.65) as compared to the control group and others. There was no significant difference ($p > 0.05$) in the FMW (893.10) of the fish fed 1.5g/kg of Garlic and Ginger diets than the control (687.00). The SGR (1.20) of fish-fed Zingiber officinale and Allium sativum fortified diets shows that there is no significant difference between treatments fed 1.5g/kg Zingiber officinale and Allium sativum and the control group. Generally, there was an increased survival rate in the experimental fish-fed Zingiber officinale and Allium sativum-supplemented diets as compared to the control.

Keywords : clarias gariepinus, zingiber officinale, allium sativum, fingerlings
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