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| Research Title : | Effects of Replacement Fishmeal with Biofloc on Feed Utilization and Growth Performance, Morphological and Chemical Characteristics of Red Tilapia |
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Abstract: Biofloc is the aggregates of living and dead particulate organic matter, phytoplankton, bacteria and grazers of the bacteria, which is suspended in ponds and tanks. The current study aimed to determine feed utilization, growth performance, morphological and chemical body features, and blood profile upon dietary biofloc feeding to red Tilapia fingerlings. The diets were control and biofloc (00.0%, 33.0%, 66.0%, and 100.0%). The diets were fed to red Tilapia fingerlings (14.3 ± 0.15 g) thrice a day. The study lasted fourteen weeks. Feed utilization, growth performance, morphological fish characters, chemical fish composition, flesh color, and blood profiles were determined. The obtained results illustrated that fishmeal replacement with 33.0% biofloc resulted in the nearest results if compared to the control diet in feed utilization, growth performance, morphological fish characters, chemical fish composition, and blood profiles. A diet containing 33.0% of biofloc gave a comparable effect in protein and energy productive values compared to the control diet versus lower values ($p < 0.05$) of 66.0% and 100.0% biofloc diets. Furthermore, the biofloc diets (66.0 and 100.0%) almost decreased in all the recorded parameters compared to biofloc (33.0%) and control diets except body fat content and flesh color. Therefore, it might be concluded that feeding biofloc up to 33.0% could be promising in feed utilization, growth performance, morphological fish characters, chemical fish composition, and blood profiles.

