

### Abstract

*Tilapia nilotica* is one of the most abundant and common fish that plays a part in an ordinary Filipino diet. The decrease of the time it takes for a fish farmer to cultivate them in order to increase the yield of production and reduction of its price rate in the market is the major objective of this study. This was done through water ionization treatment. Results showed that the water treated with ionizer induced a significant difference on the growth rate specifically on total body length ( $T \sim 114.18 \geq 0.05$ ), standard body length ( $T \sim 112.79 \geq 0.05$ ), head length ( $T \sim 110.75 \geq 0.05$ ), head width ( $T \sim 108.26 \geq 0.05$ ) and body weight ( $T \sim 121.27 \geq 0.05$ ) indicating that the growth for the organisms in the experimental setup was faster compared to the organism in the control setup. Physicochemical parameters such as pH, DO and nitrate were monitored in the study. Results showed that water treated with ionizer had a significant difference for pH ( $T \sim 65535 \geq 0.05$ ) and DO ( $T \sim 9.89 \geq 0.05$ ). No significant difference was accounted for nitrates ( $T \sim 0 \geq 0.05$ ). The pH became acidic while DO concentration increased indicating that the amount of oxygen increased. Statistically, ionization is efficient in yielding marketable sized fishes in a short amount of time. Performing this study on a larger scale is advisable to determine whether the method is also efficient in the usual breeding area.