EFFECT OF BIOFLOC BASED FEED ON GROWTH OF GENETICALLY IMPROVED FARMED TILAPIA IN INLAND SALINE WATER

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Introduction

Globally, around 20% of cultivated areas and nearly 50% of irrigated land are affected by the secondary salinisation of soil.

These areas are unsuitable for agriculture due to an increase in salinization day by day.

Aquaculture is the most suitable and potential measure for the utilization of these inland saline land and water resources named Inland Saline ground water (ISGW).

ISGW has proven the potential for sustainable fish production of euryhaline and marine species (Allan *et al*., 2009).

Evaluation of the digestibility of the feed is a critical aspect while selecting/developing feed for fish.

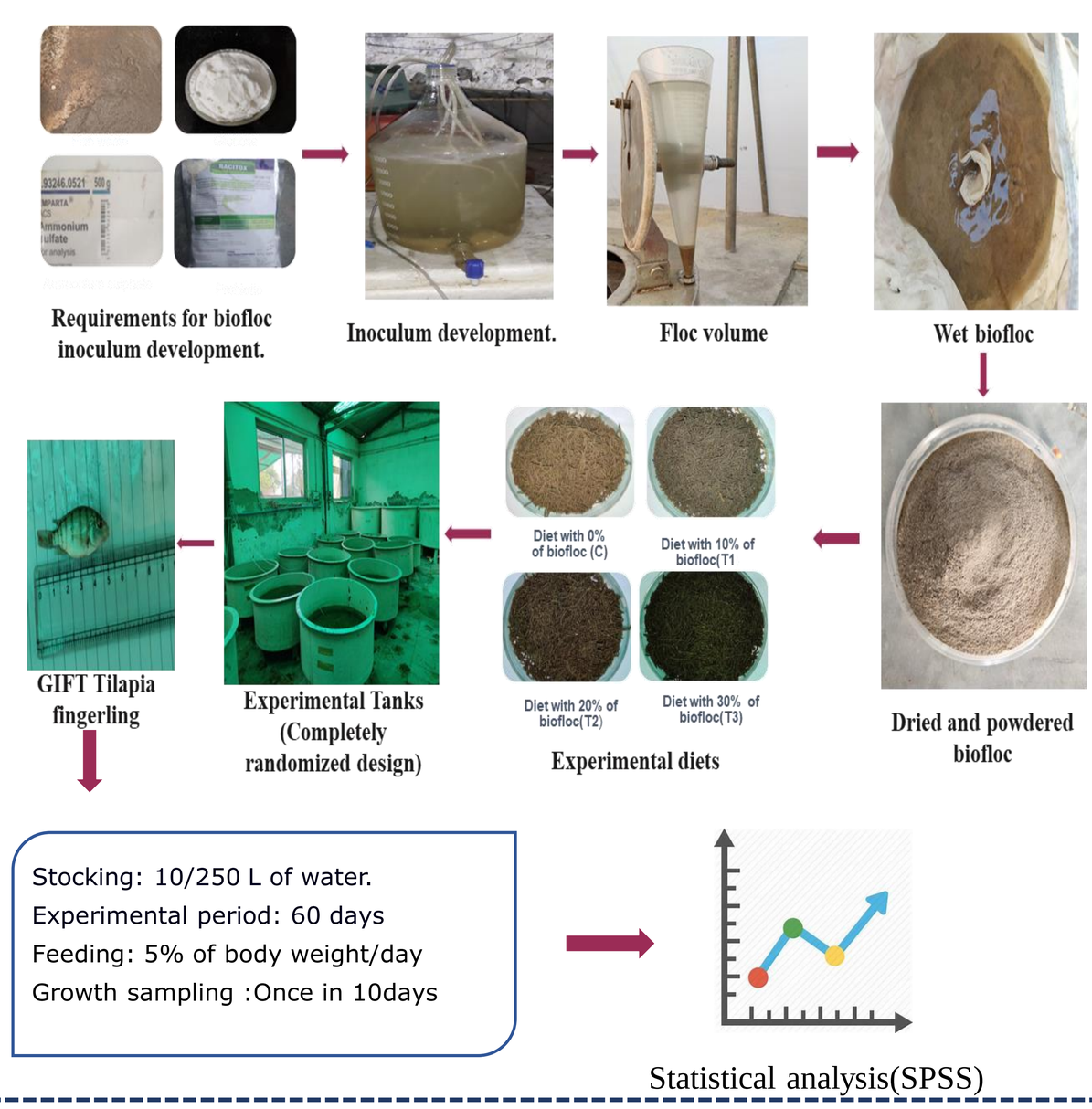
Biofloc meal is important and represent as an alternative ingredient for the development of cost-effective feed (Prabu *et al*., 2018).

Biofloc meal has been gaining the focus of intensive research in fish nutrition and could be novel approach of alternative feed (Kuhn *et al*., 2009).

Objective

To evaluate the growth performance of GIFT Tilapia fed with various inclusion level of biofloc based feed in inland saline water.

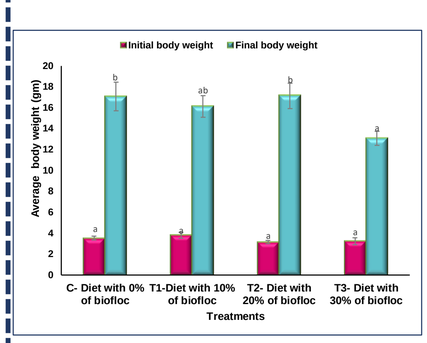
Methodology

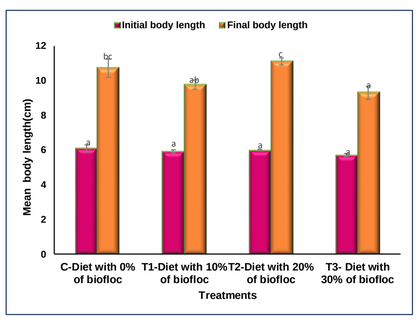


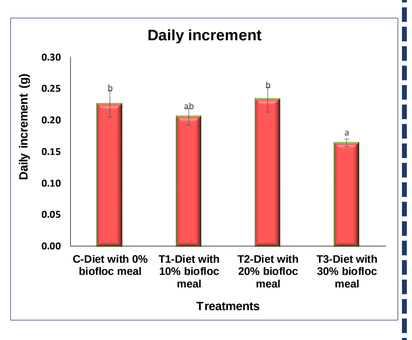
Stocking: 10/250 L of water.
Experimental period: 60 days
Feeding: 5% of body weight/day
Growth sampling :Once in 10days

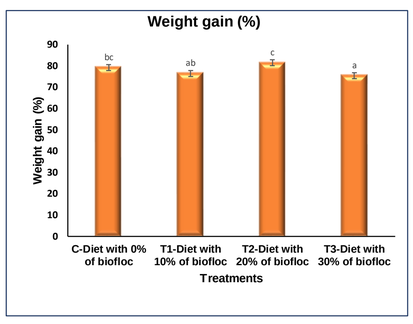
Statistical analysis(SPSS)

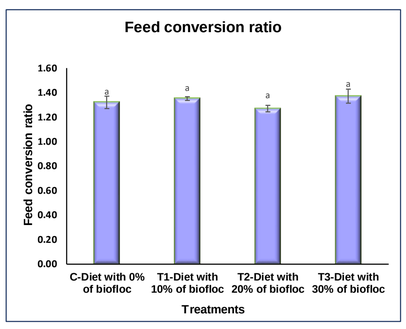
Results

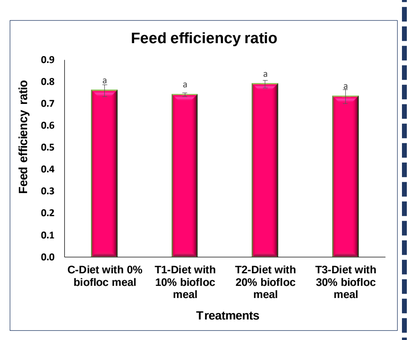


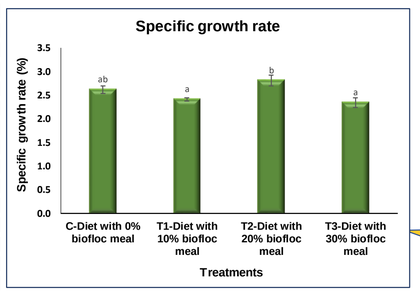












Good growth performance of GIFT tilapia was observed in the diet with 20% of biofloc meal in terms of PWG (81.38±1.22%), DI (0.23±0.02gday^{-1}),SGR (2.81±0.11), feed conversion ratio (1.27±0.03), and feed efficiency ratio (0.79±0.02).

Discussion and Conclusion

- The highest growth was observed in T2 than control. This confirms previous reports on African catfish juvenile (Ekasari *et al*., 2019).
- This result might be explained by three possibilities that are first by higher protein, lipid, phosphorous digestibilities in T2 (20% inclusion level of biofloc meal) than control (Ekasari *et al*., 2018), second by the higher feed digestibility and higher bioavailability of nutrients, and third by the enhancement of the fish health status through the contribution of bioactive compounds (Ekasari *et al*., 2019).
- In the present study, the higher values of growth performances of GIFT tilapia were observed in T2 (20% inclusion level of biofloc meal). The results of the current study recommend that 20% biofloc meal in the diet is optimum for the growth of GIFT tilapia in inland saline ground water.

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