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The effects of different feeding strategies on the growth of young Nile tilapia, *Oreochromis niloticus* L., in a freshwater recirculating system during summer

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The effects of different feeding strategies on the growth of young Nile tilapia, Oreochromis niloticus L., in a freshwater recirculating system was evaluated during summer season. Twenty fish (Mean body weight ± SD; 37.7 ± 0.10 g) each were randomly distributed into each of 24 tanks. Eight treatments were prepared in triplicate. Control fish were hand-fed commercial feed twice daily without starvation. The other seven treatments employed different feeding and starvation strategies ranging from 1 day starved and 1 day fed (1 DS + 1 DF) to 7 days starved to 7 days fed (7 DS + 7 DF). All fish survived to the end of the 44-day feeding trial. The amount of food supplied was highest for the control fish in the control. Food supplied to fish in the 3 DS + 3 DF and 4 DS + 4 DF treatments was significantly lower than that of fish in the 1 DS + 1 DF and 2 DS + 2DF treatments, but significantly higher than that of fish in the 5 DS + 5 DF, 6 DS + 6 DF and 7 DS + 7 DF treatments. The weight gain of control fish was significantly higher than that of fish in other treatments. Feed efficiency ratio (FER) for fish in the 7 DS + 7 DF treatment was significantly higher than that of fish in the control group, but it did not differ from that of fish in the 1 DS + 1 DF and 2 DS + 2 DF treatments. We concluded that young Nile tilapia raised with different starvation and feeding regimes during the summer in a freshwater recirculating system did not catch up in growth to fish fed daily. However, the enhanced FER of Nile tilapia in the 7 DS + 7 DF, 2 DS + 2 DF, and 1 DS + 1DF treatments partly explains the compensatory growth of the fish, although their weight gain was relatively low.

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