

Apparent nutrient digestibility, growth performance and feed utilization of juvenile Nile tilapia, *Oreochromis niloticus* L., as influenced by stocking density and feeding frequency

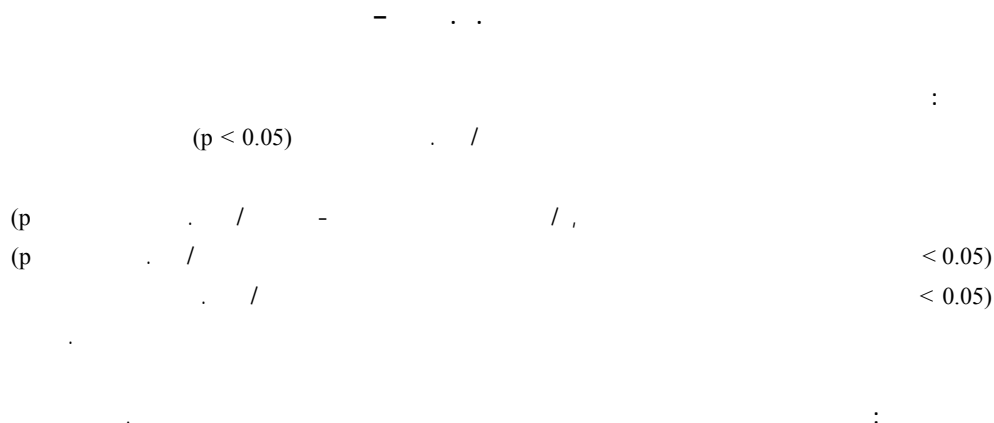
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Abstract. Experiments were carried out to study the effects of stocking density and feeding frequency on apparent nutrient digestibility, growth performance and feed utilization efficiency of tilapia, *Oreochromis niloticus* juveniles. Significantly higher ($P < 0.05$) weight gain (%), specific growth rate (SGR %/day), feed conversion ratio (FCR), protein efficiency ratio (PER), apparent nitrogen utilization (ANU %) and carcass nitrogen deposition (CND mg/day) were achieved by the fish stocked at 0.5/L and receiving either 3 or 4 meals/day. Significantly lower growth performance was observed in all groups of fish fed twice/day. At all stocking densities tested, apparent digestibility coefficients (ADC) for protein were significantly better when the fish were fed 3 meals/day. In general the ADC values obtained in this experiment were low for all nutrients which may be attributed to the excreta collection method applied in this study

Key words: *Oreochromis niloticus*, apparent nutrient digestibility, growth performance, feed utilization efficiency, stocking density, feeding frequency

Oreochromis niloticus L.



Introduction

Tilapia culture is an expanding industry throughout the world with the trend toward conversion to semi-intensive and intensive

industry. The demand for studying the performance of fish under high-density conditions is intensifying. A crucial factor determining the feasibility of an aquaculture organism is the maximum