

Effect of Sinking and Floating Diets on Common Carp Growth Performance in Earthen Ponds

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Abstract: The current experiment was conducted in earthen ponds at Agricultural Research Station belonging to the Aquaculture Unit, College of Agriculture, University of Basrah at Al-Hartha District. Six small earthen ponds (600 m²) were used to investigate the effect of sinking (T1) and floating diets (T3) and also the use of as demand feeders (T2) in sinking diet on the growth criteria of common carp. Total length and weight of fishes were measured at the beginning and at the end of the experiment, while subsamples of fishes were weighed periodically, and daily feed changed after each weighing. Temperature, pH and salinity of the pond water were measured at each sampling period. Statistical analysis for the results proved that there were no significant differences ($P < 0.05$) between the growth criteria (final weights, weights increments, daily growth rate, specific growth rate and feed conversion rate) of the three treatments. Results of the current experiment proved also that there were wide weight ranges (457-3470 g) in T2 comparing with T1 (1025-2300 g) and T3 (1000-2800 g).

Keywords: Demand feeders, Growth rate, Sinking diet, Feed conversion

Introduction

The effects and importance of aquaculture that has been practiced for centuries were expanded dramatically over the last few decades due to the fact that the amount of fishes caught by traditional capture fisheries stagnated, while the demand increased (FAO, 2001). Hasan et al. (2007) stated that fish ponds characteristics make them very suitable to produce cultivated fishes in an integrated way according to the recent country reviews of FAO. It is well known that common carp, *Cyprinus carpio* was one of the most common species that generates an important part of the fish production in inland freshwater rearing systems. For this reason, it was introduced to inland waters in different regions around the world. Common carp has an excellent growth rate and omnivorous feeding habits, so it is very much favored for cultivation in ponds alone or in combination with other species. According to FAO reports, common carp was the fourth most important freshwater cultivated species in the world, in 2020, that