

Effect of Dietary Cellulose Levels on the Growth Parameters of Nile Tilapia *Oreochromis Niloticus* Fingerlings

Authors : Keri Alhadi Ighwela, Aziz Bin Ahmad, A. B. Abol-Munafi

Abstract : Three purified diets were formulated using fish meal, soya bean, wheat flour, palm oil, minerals and maltose. The carbohydrate in the diets was increased from 5 to 15% by changing the cellulose content to study the effect of dietary carbohydrate level on the growth parameters of Nile tilapia *Oreochromis niloticus*. The protein and the lipid contents were kept constant in all the diets. The results showed that, weight gain, protein efficiency ratio, net protein utilisation and hepatosomatic index of fish fed the diet containing 15% cellulose were the lowest among all groups. Addition, the fish fed the diet containing 5% cellulose had the best specific growth rate, and food conversion ratio. While, there was no effect of the dietary cellulose levels on condition factor and survival rate. These results indicate that Nile tilapia fingerlings are able to utilize dietary cellulose does not exceed 10% in their feed for optimum growth.

Keywords : dietary cellulose, growth parameters, *oreochromis niloticus*, purified diets

Conference Title : ICBESE 2015 : International Conference on Biological, Ecological and Environmental Sciences, and Engineering

Conference Location : Kuala Lumpur, Malaysia

Conference Dates : August 24-25, 2015