

RESEARCH ARTICLE

Effect of mixed feeding strategies on growth performances of striped cat fish (*Pangasianodon hypophthalmus*) and catla (*Catla catla*) under polyculture

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ABSTRACT..... A 120 days feeding trial was conducted in triplicate in the cement cistern to investigate the effect of mixed feeding strategies on growth performances of striped cat fish (*Pangasianodon hypophthalmus*) and catla (*Catla catla*) under polyculture system. Both the species of uniform size and initial weight were stocked at a ratio of 60:40 (striped cat fish 60% and catla 40%) by adopting a total stocking density of 30,000 numbers of fingerlings per ha. Experimental diets were prepared containing varying levels of proteins from the plant source like soybean, sesame oil cake, mustard oil cake following the standard procedures for formulation of pelleted feed. The feed ingredients like mustard oil cake, sesame oil cake, soybean, de-oiled rice bran, corn flour, vegetable oil, vitamin and mineral premix were procured and utilized for the purpose. Five experimental diet were prepared as T₀ : Control diet with the mixture of mustard oil cake and de-oiled rice bran, Low protein diet (T₁) with 15 per cent crude protein, High protein diet (T₂) with 30 per cent crude protein, T₃ One day low protein and one day high protein on alternate day and (T₄) Two days low protein and two days high protein on consecutive manner. The feed was provided to the experimental animals at a rate of 4 per cent of their body weight daily. Among all the different treatments, striped cat fish and catla attained maximum average weight gain under the influence of one day low protein and one day high protein diet in alternate manner (T₃) followed by T₂ (with high protein diet) and T₁ (with low protein diet). The growth performances under the treatment (T₄) was considered to be least. The analysis of variance revealed a significant difference ($\alpha=0.05$) between the treatments and a highly significant difference was reported between the days of culture irrespective of fish species. The treatment (T₃) was considered to be the best out of all other treatments in term of average weight gain (g), increment in length, minimum FCR and PER with higher specific growth rate.

KEY WORDS..... Striped cat fish, Catla, Growth performance, Polyculture

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