

Feed Conversion Ratio Controlling in Cobia Culture, (*Rachycentron canadum* Linnaeus, 1766) Using Different Feeding Frequencies and Feeding Regimes

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Abstract

Cobia is an economic fish that could be candidate for commercial farming. Because its growth is very fast, tasty and the live fish has rather high price. However, high feed conversion ratio (FCR) is a main constraint resulting in cost ineffectiveness for culturing this species. This may be caused by inappropriate feeding management. Therefore, a feeding trial was conducted to evaluate the effects of feeding frequency and regime on FCR of Cobia. A complete feed containing 49 % protein and 12.9 % lipid feed was fed to the test fish (an initial weight of 100 grams) for 6 months by the methods integrated feed frequency with regime. The feeding frequency consisted of three levels, namely feeding twice daily (at 09.00 and 16.00), once daily (at 09.00) and once every two days (at 09.00). While the feeding regime consisted of feeding to satiation and feeding with the fixed amount. Controlling feed amount was assigned by fixing FCR in range of 1.0-1.5 at feeding rate of 4-5 % BW. When the experiment finished, the test fish could reach 700-1,200 grams. The results indicated that both feeding frequency and regime affected significantly on fish growth performance, survival rate, FCR, size distribution, physical and chemical qualities ($p < 0.01$). Both factors also showed interaction on these parameters. Among these integrated methods, feeding Cobia twice daily to satiation was the best practice due to provision of the best growth performance, high survival rate (95 %) and FCR by approximately 1.3. Subsequently, feeding once daily to satiation provided FCR by approximately 1.6. There was feasibility that these two feeding methods could reduce FCR lower than 1.5, for culturing Cobia with complete feed until marketable size. Because their FCRs showed in decreasing trend along with the culture period increased.

Keywords: Cobia, feed conversion ratio, feeding frequency, feeding regime

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