

Growth Performance, Survival Rate and Feed Efficacy of Climbing Perch, *Anabas testudineus*, Feed Experimental Diet with Several Dosages of Papain Enzyme

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Abstract : The objective of the present study was to determine the optimum dose of papain enzyme in the diet for growing, survival rate and feed efficacy of climbing perch (*Anabas testudineus*). The study was conducted at the Laboratory of Aquatic of Faculty of Veterinary, Syiah Kuala University from January to March 2016. The completely randomized design was used in this study. Six dosages level of papain enzyme were tested with 4 replications i.e. 0 g kg⁻¹ of feed, 20.0 g kg⁻¹ feed, 22.5 g kg⁻¹ of feed, 25.0 g kg⁻¹ of feed, 27.5 g kg⁻¹ of feed, and 30.0 g kg⁻¹ of feed. The experimental fish fed twice a day at feeding level of 5% for 60 days. The results showed that weight gain ranged from 2.41g to 7.37g, total length gain ranged from 0.67cm to 3.17cm, specific growth rate ranged from 1.46 % day to 3.41% day, daily growth rate ranged from 0.04 g day to 0.13 g day, feed conversion ratio ranged from 1.94 to 3.59, feed efficiency ranged from 27.99% to 51.37%, protein retention ranged from 3.38% to 28.28%, protein digestibility ranged from 50.63% to 90.38%, and survival rate ranged from 88.89% to 100%. The highest rate for all parameters was found in the dosage of 3.00% papain enzyme kg feed. The ANOVA test showed that enzyme papain gave a significant effect on the weight gain, total length gain, daily growth rate, specific growth rate, feed conversion ratio, feed efficiency, protein retention, protein digestibility, and survival rate of the climbing perch (*Anabas testudineus*). The best enzyme papain dosage was 3.0%.

Keywords : betok, feed conversion ratio, freshwater fish, nutrition, feeding

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