

EFFECT OF FEEDING FREQUENCY ON FOOD INTAKE AND  
PROTEIN DIGESTIBILITY OF WEANLING PIGS

FOR HUMAN NUTRITION

DEPARTMENT OF NUTRITION AND FOOD SCIENCE  
UNIVERSITY OF CALIFORNIA, BERKELEY



**EFFECTS OF FEEDING FREQUENCY ON FOOD INTAKE AND  
PROTEIN DIGESTIBILITY OF HYBRID TILAPIA**

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of Bachelor of Science in Agrotechnology  
(Aquaculture)**

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## ABSTRACT

The aim of this project is to investigate the effects of feeding frequency on food intake and protein digestibility of hybrid tilapia. Fish were fed to satiation with a pellet diet at three different feeding frequency (two meals day<sup>-1</sup>, three meals day<sup>-1</sup> and four meals day<sup>-1</sup>). The fish remaining in the treatments receiving two meals day<sup>-1</sup> were fed to satiation at 0800 and 1700 h, the fish remaining in the treatments receiving three meals day<sup>-1</sup> were fed to satiation at 0800, 1200 and 1700 h and the fish remaining in the treatments receiving four meal day<sup>-1</sup> were fed to satiation at 0800, 1100, 1400 and 1700 h.

Sampling for body weight, food intake, food conversion ratio and protein digestibility had been done every two week interval. The results obtained shown, hybrid tilapia fed four meals a day had a highest body weight and not significantly different from those in fish fed two meals a day and three meals a day. Four meals feeding had a highest amount of food intake and food conversion ratio and there are not significantly different in food intake and FCR. The protein digestibility in four feeding was not significantly different from those in fish fed two meals a day, three meals a day and four meals a day for week 2, week 4 and week 8. Therefore, Feeding frequency does not seem to affect digestibility in fish greatly. It can be concluded that four feeding frequency is more optimum and should be practiced.

## ABSTRAK

Tujuan projek ini adalah untuk mengetahui kesan kekerapan pemberian makanan ke atas kadar pengambilan makanan dan pencernaan protein ke atas tilapia kacukan. Ikan diberi makan sehingga kenyang dengan pellet dengan tiga perbezaan kekerapan pemberian makanan (dua kali sehari, tiga kali sehari dan empat kali sehari). Ikan yang menerima rawatan dua kali sehari diberi makan sehingga kenyang pada jam 0800 dan 1700. Ikan yang menerima rawatan tiga kali sehari diberi makan sehingga kenyang pada jam 0800, 1200 dan 1700. Ikan yang menerima rawatan empat kali sehari diberi makan sehingga kenyang pada jam 0800, 1100, 1400 dan 1700.

Berat badan ikan, kadar pengambilan makanan, nisbah penukaran makanan dan pencernaan protein dijalankan setiap dua minggu. Keputusan menunjukkan kekerapan 4 kali sehari mempunyai berat badan ikan tertinggi dan tiada perbezaan berbanding dengan kekerapan 2 kali sehari dan 3 kali sehari. Kekerapan 4 kali sehari menunjukkan kadar pengambilan makanan dan nisbah penukaran makanan tertinggi dan menunjukkan tiada perbezaan. Pencernaan protein tidak berbeza berbanding dengan kekerapan 2, 3 dan 4 kali sehari untuk minggu ke-2, ke-4 dan ke-8. Oleh sebab itu, kekerapan pemberian makanan tidak memberikan kesan sepenuhnya ke atas pencernaan ikan. Kesimpulannya, kekerapan empat kali sehari adalah lebih optimum dan perlu dipraktikkan.