

# PENAMBAHAN MIKROBA, *Aspergillus niger* DALAM BUNGKIL KELAPA SAWIT SEBAGAI BAHAN BAKU PAKAN UNTUK PEMBESARAN IKAN KERAPU MACAN

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## ABSTRAK

Penelitian ini dilakukan untuk mendapatkan informasi tentang pengaruh dosis *Aspergillus niger* dalam bungkil kelapa sawit sebagai bahan pakan pada pembesaran ikan kerapu macan. Ikan uji yang digunakan berukuran bobot rata-rata  $23,15 \pm 0,23$  g; ditebar dalam keramba jaring apung ukuran 1 m x 1 m x 2 m, dengan kepadatan 16 ekor/keramba. Perlakuan yang diuji adalah penambahan *Aspergillus niger* sebanyak 2, 4, 8, 16 g/kg bungkil kelapa sawit dan kontrol. Masing-masing perlakuan diulang tiga kali dan disain adalah rancangan acak lengkap. Selama pemeliharaan, ikan diberi pakan uji dua kali sehari (pagi dan sore) secara satiasi selama 20 minggu. Hasil penelitian menunjukkan bahwa penambahan 8 g *Aspergillus niger*/kg bungkil kelapa sawit memberikan pertambahan bobot dan laju spesifik lebih tinggi daripada kontrol ( $P < 0,05$ ), tetapi tidak berbeda dengan penambahan 2,4 dan 16 g *Aspergillus niger*/kg bungkil kelapa sawit. Sedangkan nilai efisiensi pakan, rasio efisiensi protein, dan retensi protein pada perlakuan penambahan 8 g *Aspergillus niger*/kg bungkil kelapa sawit tidak berbeda nyata dengan perlakuan penambahan 2 dan 4 g *Aspergillus niger*/kg kelapa sawit dan kontrol ( $P > 0,05$ ), namun nilainya nyata lebih tinggi ( $P < 0,05$ ) dibandingkan perlakuan penambahan 16 g *Aspergillus niger*. Kisaran dosis *Aspergillus niger*/kg bungkil kelapa sawit adalah antara 7,2—8,2 g untuk memberikan respons tumbuh yang baik.

**ABSTRACT:** *Addition of microbe, Aspergillus niger to palm oil cake as an ingredient of diets for tiger grouper Epinephelus fuscoguttatus juveniles. By: Neltje Nobertine Palinggi, Kamaruddin, and Makmur*

*The aim of this experiment was to determine the effect of addition of the microbe Aspergillus niger to palm oil cake as an ingredient of diet for the tiger grouper juveniles. Tiger grouper juveniles of average initial individual weight of  $23.15 \pm 0.23$  g were stocked into floating cages 1 m x 1 m x 2 m in size, each at stocking density of 16 individuals/cage. The treatments tested were four different dosages of A. niger, i.e.; 2, 4, 8, 16 g/kg palm oil cake and a control (without A. niger), each replicates three times. The juveniles were fed the experimental diets twice daily (in the morning and afternoon) to satiation for a feeding period of 20 weeks. The results of experiment showed that the weight gain and specific growth rate of tiger grouper juveniles fed the diet with 8 g A. niger/kg palm oil cake were significantly higher ( $P < 0.05$ ) than the control but, there were no significant difference ( $P > 0.05$ ) among those of the juveniles fed the diets with 2, 4, 16 g of A. niger/kg palm oil cake. Although the feed efficiency, protein efficiency ratio and protein retention of juveniles fed the diet with 8 g A. niger/kg palm oil cake were not significantly different ( $P > 0.05$ ) from those of the juveniles fed the diets with 2 and 4 g of A. niger/kg palm oil cake, those of juveniles fed diet with 8 g of A. niger/kg palm oil cake were significantly higher ( $P < 0.05$ ) than those of the juveniles fed the diet with 16 g A. niger/kg palm oil cake. The best of growth rate of tiger grouper juveniles occurred at the dosage of 7.8—8.2 g A. niger/kg palm oil cake.*

**KEYWORDS:** *Aspergillus niger, palm oil cake, tiger grouper*