

KONSENTRASI PROTEIN TERLARUT DAN AMONIA  
DARI CAMPURAN RUMPUT RAJA DAN TEPUNG KEPALA UDANG  
YANG BERBEDA SECARA IN VITRO

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INTISARI

Penelitian ini bertujuan untuk mengetahui konsentrasi protein terlarut dan amonia dari campuran rumput raja dan tepung kepala udang windu (*Penaeus monodon*) yang berbeda secara *in vitro*. Sampel bahan pakan yang digunakan adalah tepung rumput Raja (RR) dan tepung kepala udang windu (TU). Penelitian yang dilakukan terdiri dari empat perlakuan yaitu  $A_1$  (100%RR:0%TU),  $A_2$  (75%RR:25%TU),  $A_3$  (50%RR:50%TU), dan  $A_4$  (25%RR:75%TU). Penelitian ini menggunakan rancangan acak lengkap factorial dengan tiga ulangan. Variabel yang diamati adalah konsentrasi protein terlarut dan konsentrasi amonia ( $NH_3$ ). Pengambilan sampel untuk analisis protein terlarut dan  $NH_3$  dilakukan pada jam ke 0, 24, 36 dan 48. Data yang diperoleh diuji dengan analisa variansi dan dilanjutkan dengan uji Duncans *multiple range test* jika ada perbedaan yang nyata. Hasil penelitian menunjukkan bahwa Konsentrasi protein terlarut dan amonia untuk perlakuan  $A_1$ ,  $A_2$ ,  $A_3$  dan  $A_4$  berturut-turut adalah 1,59; 1,39; 1,24; 1,27 (mg/ml) dan 20,57; 26,02; 29,93; 26,03 (mg/100ml). Dari hasil penelitian dapat disimpulkan pada masing-masing perlakuan dengan persentase tepung kepala udang yang semakin besar tidak meningkatkan konsentrasi protein terlarut tetapi meningkatkan kadar amonia. Konsentrasi amonia masih diatas kebutuhan minimum sehingga aktivitas mikrobial tidak terganggu.

(Kata kunci: Konsentrasi Protein Terlarut, Amonia, Tepung Kepala Udang, *In Vitro*)

CONCENTRATION OF SOLUBLE PROTEIN AND AMMONIA  
FROM A DIFFERENCE MIXTURE OF KING GRASS AND MEAL OF  
SHRIMP HEAD *IN VITRO*

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ABSTRACT

The objective of this fesearch was to know the concentration of soluble protein from a difference mixture of king grass and meal of Windu shrimp head (*Penaeus monodon*) *in vitro*. This research was conducted by being based on the completely randomize design of factorial pattern. Sample of feedstuff used was meal of king grass (KG) and meal of windu shrimp head (MS). The conducted research is consisted of four treatments of feed, i.e.,  $A_1$  (100%KG:0%MS),  $A_2$  (75%KG:25% MS),  $A_3$  (50%KG:50%MS) and  $A_4$  (25%KG:75%MS). The experiment used completely randomized design factorial with three replication. The variable analyzed was the concentration of soluble protein and concentration of ammonia ( $NH_3$ ). Sampling for soluble protein analysis and  $NH_3$  is held on certain time, i.e., 0<sup>th</sup>, 24<sup>th</sup>, 36<sup>th</sup>, and 48<sup>th</sup>. The obtained data was tested by using variance analysis and it was continued by using Duncans multiple range test if it was found a significant difference. The result of this research indicated that the concentration of soluble protein and ammonia for treatment of  $A_1$ ,  $A_2$ ,  $A_3$  and  $A_4$  is 1.59; 1.39; 1.24; 1.27 (mg/ml) and 20.57; 26.02; 29.93; 26.03 (mg/ml) respectively. It could be concluded that on each treatment with percentage of meal of shrimp head that becomes bigger and bigger didnt increase the concentration of soluble protein but it increased the ammonia. The concentration of ammonia still exceeds the minimum need so that activities of microbe did not disturb.

(Key Words : Concentration of Soluble Protein, Ammonia, Meal of Shrimp Head, *In Vitro*)