

RINGKASAN

PUPUT TRISNIARINDI SAPUTRI. : Penggunaan Berbagai Macam Probiotik Cair Terhadap Konsumsi dan Kecernaan Protein Pada Burung Puyuh Betina. Tujuan penelitian yaitu mengkaji pengaruh pemberian berbagai jenis probiotik cair melalui air minum terhadap konsumsi dan pencernaan protein burung puyuh. Penelitian dilaksanakan pada tanggal 1 September sampai 1 November 2019, bertempat di Desa Sokaraja Kulon RT 01/ RW 12 Kecamatan sokaraja, Kabupaten Banyumas dan di Laboratorium Ilmu Nutrisi dan Makanan Ternak, Fakultas Peternakan, Universitas Jenderal Soedirman, Purwokerto. Materi yang digunakan adalah burung puyuh betina umur 30 hari sebanyak 100 ekor, kandang baterai 20 unit, probiotik komersil (probiotik A, B dan C) dan ransum komersil untuk puyuh periode growing dengan PK 22,2 % dan energi 3032,5%. Metode yang digunakan yaitu eksperimen menggunakan Rancangan Acak Lengkap dengan 4 taraf perlakuan yaitu P₀ merupakan kontrol, air minum yang tidak diberi tambahan probiotik cair, P₁ : 2 ml probiotik A ditambahkan kedalam 1 liter air minum, P₂ : 2 ml probiotik B ditambahkan kedalam 1 liter air minum dan P₃ : 2 ml probiotik C ditambahkan kedalam 1 liter air minum dan setiap perlakuan diulang sebanyak 5 kali. Peubah yang diamati yaitu konsumsi dan pencernaan protein. Analisis data menggunakan analisis variansi dan digunakan uji lanjut Beda Nyata Jujur. Hasil yang didapat pada penelitian ini adalah pemberian berbagai macam probiotik cair memberikan pengaruh tidak nyata ($P > 0,05$) terhadap konsumsi dan pencernaan protein. Penelitian dilakukan selama 60 hari, serta didapatkan rata-rata konsumsi air minum selama pemeliharaan berturut-turut pada P₀, P₁, P₂ dan P₃ yaitu 49,03 ml/ekor/hari, 51,83 ml/ekor/hari, 50,68 ml/ekor/hari dan 48,66 ml/ekor/hari. Rataan konsumsi air minum tersebut di analisis menggunakan analisis variansi yang menunjukkan hasil tidak berbeda nyata ($P > 0,05$). Rataan konsumsi protein berturut-turut P₀, P₁, P₂ dan P₃ yaitu 3,40 gram/ekor/hari, 3,32 gram/ekor/hari, 3,44 gram/ekor/hari, 3,34 gram/ekor/hari. Rataan pencernaan protein secara berturut-turut P₀ : 85,90% per ekor, P₁ : 86,24% per ekor, P₂ : 86,17% per ekor, P₃ : 85,64% per ekor. Hasil konsumsi dan pencernaan protein tersebut dapat dikatakan baik, karena standar konsumsi protein sebesar 3 gram/ekor/hari sedangkan pencernaan protein berkisar antara 70-85%. Kesimpulan dari penelitian ini adalah pemberian probiotik 2 ml/liter air minum belum memberikan pengaruh terhadap konsumsi dan pencernaan protein.

Kata kunci : burung puyuh, probiotik komersil, konsumsi protein, pencernaan protein.

SUMMARY

PUPUT TRISNIARINDI SAPUTRI. : The effect of liquid probiotic types on consumption protein and protein digestion of female quail (*Coturnix coturnix japonica*). The research objective was to examine the effect of giving various types of liquid probiotics through drinking water to the consumption and digestibility of quail protein. The study was conducted on September 1 to November 1, 2019, located in Sokaraja Kulon Village RT 01 / RW 12 sokaraja District, Banyumas Regency and at the Laboratory of Animal Nutrition and Food Sciences, Faculty of Animal Husbandry, Jenderal Soedirman University, Purwokerto. The material used was 30-day-old female quail as many as 100, 20 units of battery cages, commercial probiotics (probiotics A, B and C) and commercial rations for quail growing period with PK 22.2% and energy 3032.5%. The method used is an experiment using a completely randomized design with 4 levels of treatment, namely P₀ is control, drinking water is not given a liquid probiotic addition, P₁: 2 ml of probiotic A is added to 1 liter of drinking water, P₂ : 2 ml of probiotic B is added to 1 liter drinking water and P₃: 2 ml of probiotic C added to 1 liter of drinking water and each treatment was repeated 5 times. The variables observed were protein consumption and digestibility. Data analysis used variance analysis and used a further test of Honest Real Difference. The results obtained in this study were the administration of various kinds of liquid probiotics which had no significant effect (P> 0.05) on protein consumption and digestibility. The study was conducted for 60 days, and obtained the average consumption of drinking water during maintenance respectively at P₀, P₁, P₂ and P₃ which was 49.03 ml / head / day, 51.83 ml / head / day, 50.68 ml / head / day and 48.66 ml / head / day. The average consumption of drinking water was analyzed using variance analysis which showed no significant difference (P> 0.05). The average consumption of protein, respectively P₀, P₁, P₂ and P₃ is 3.40 grams / head / day, 3.32 grams / head / day, 3.44 grams / head / day, 3.34 grams / head / day. The protein digestibility values were P₀: 85.90% per head, P₁: 86.24% per head, P₂: 86.17% per head, P₃: 85.64% per head. The average of consumption and digestibility of these proteins can be said to be good, because the standard of protein consumption is 3 grams / head / day while protein digestibility ranges from 70-85%. The conclusion of this study is that probiotic administration of 2 ml / liter of drinking water has not given a effect on protein consumption and digestibility.

Keywords: quail, commercial probiotics, protein consumption, protein digestibility