

ABSTRACT

SRI NURHAYATI. A.1710682. Effects of Different Levels of Energy and Protein Content in Ration on Metabolizable Energy Intake in Layer Quails (*Coturnix coturnix japonica*). Under immediate supervision of Deden Sudrajat and Hanafi Nur

One of the problems faced by quail farmers is limited availability of commercial quail feed in market. This has made it uneasy for farmers to find the best quality feed which provide adequate nutrients for their quails. This study was aimed at assessing the effects of different levels of energy (ME) and protein (CP) content in ration on ME intake (MEI) in layer quails. The study was conducted within 42 days from 9 March to 19 April 2020 at the Poultry Farm of Department of Animal Husbandry, Faculty of Agriculture, Djuanda University. Ninety-six female quails of Slamet Quail Farm were used. The birds were raised in battery cages sized 70 cm (length) x 55 cm (width) x 35 cm (height). Self-mixed rations containing different levels of protein and metabolizable energy were used. Rations were formulated from corn meal, rice bran, soybean cake, fish meal, premix, crude palm oil (CPO), dicalcium phosphate (DCP), limestone (CaCO_3), and organic chromium (Cr-O). A completely randomized design with 4 treatments and 4 replicates was used. Treatments consisted of rations containing 17% CP and 2800 kcal/kg ME (R1), 18% CP and 2950 kcal/kg ME (R2), 19% CP and 3000 kcal/kg ME (R3), and 20% CP and 3000 kcal/kg ME (R4). Data were subjected to a one-way analysis of variance and a Duncan test. Results showed that treatments gave significant effects ($P < 0.05$) on apparent metabolizable energy (AME) and nitrogen-corrected AME (AMEn) but not ($P > 0.05$) on MEI and AMEn/GE ratio.

Key words: *energy, protein, metabolizable energy, quail, ration*

ABSTRAK

SRI NURHAYATI. A.1710682. Pengaruh Energi dan Protein Berbeda dalam Ransum terhadap Kadar Energi Metabolisme Ransum Puyuh Petelur (*Coturnix coturnix japonica*). Dibimbing oleh Deden Sudrajat dan Hanafi Nur

Permasalahan yang dihadapi peternak puyuh saat ini yaitu belum begitu banyak pakan komersial bagi puyuh yang beredar di pasaran. Hal tersebut membuat peternak sering kali kebingungan untuk menyediakan pakan yang berkualitas dan pakan yang sudah sesuai dengan kebutuhan puyuh yang dipelihara. Tujuan dari penelitian ini yaitu untuk menguji pengaruh pemberian energi dan protein berbeda dalam ransum terhadap kadar energi metabolisme ransum puyuh. Penelitian dilaksanakan selama 42 hari, pada tanggal 9 Maret - 19 April 2020 bertempat di kandang unggas Program Studi Peternakan Universitas Djuanda. Penelitian ini menggunakan puyuh (*Coturnix coturnix japonica*) betina yang diproduksi oleh Slamet Quail Farm sebanyak 96 ekor. Kandang yang digunakan adalah kandang baterai berukuran panjang 70 cm, lebar 55 cm dan tinggi 35 cm. Ransum tersusun dari jagung kuning, dedak halus, bungkil kedelai, tepung ikan, *premix*, *Crude Palm Oil* (CPO), *DiCalcium Phosphate* (DCP), Kapur (CaCO_3), dan Kromium Organik (Cr-O). Rancangan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 4 ulangan. Analisis data menggunakan sidik ragam One-Way Analysis of Variance (ANOVA) dan uji lanjut Duncan. R1: PK 17% dan EM 2800 kkal/kg, R2: PK 18% dan EM 2950 kkal/kg, R3: PK 19% dan EM 3000 kkal/kg, R4: PK 20% dan EM 2900 kkal/kg. Hasil penelitian pemberian energi dan protein berbeda dalam ransum berpengaruh nyata ($P < 0,05$) terhadap kadar energi metabolisme semu dan kadar energi metabolisme semu terkoreksi nitrogen namun berpengaruh tidak nyata ($P > 0,05$) terhadap konsumsi energi dan rasio EMSn/EB.

Kata kunci: *energi, protein, energi metabolisme, puyuh, ransum*