

PENGARUH PENAMBAHAN METIONIN DAN LISIN
PADA RANSUM BERPROTEIN RENDAH DAN LEVEL
KALSIUM YANG BERBEDA TERBAKUP
PENAMPILAN AYAM BROILER

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INTISARI

Penelitian ini dilakukan untuk mengetahui pengaruh penambahan Metionin dan Lisin pada ransum berprotein rendah dengan aras kalsium yang berbeda terhadap penampilan ayam broiler. Delapan puluh ekor anak ayam jantan *Strain Hubbard* umur satu minggu yang digunakan dalam penelitian ini dibagi menjadi 4 kelompok perlakuan pakan yang berbeda. Masing-masing dengan 5 kali ulangan dan tiap kali ulangan terdiri dari 4 ekor ayam yang dibagi secara acak. Empat kelompok perlakuan pakan adalah : RI (pakan yang mengandung level protein 15 % dan kalsium 0,5%), RH (pakan yang mengandung level protein kasar kasar 15% dan kalsium 2,0%), RIII (pakan yang mengandung level protein kasar 15% ditambah metionin dan lisin, dengan kalsium 0,5%), RIV (pakan yang mengandung level protein kasar 15% ditambah metionin dan lisin, dengan kalsium 2,0%). Pakan dan air minum diberikan secara *ad libitum*. Data yang diambil adalah konsumsi pakan, pertambahan berat badan dan konversi pakan. Semua data yang diperoleh dianalisis variansi dengan rancangan acak lengkap pola factorial 2x2 dan apabila terdapat perbedaan nyata dilanjutkan dengan uji jarak ganda *Duncan*. Hasil penelitian menunjukkan bahwa konsumsi pakan tidak dipengaruhi secara nyata oleh aras protein, kalsium maupun interaksinya. Sedangkan pertambahan berat badan dan konversi pakan dipengaruhi secara nyata ($P < 0,05$) oleh penambahan asam amino metionin dan lisin. Pada ayam yang diberi aras protein 15% dan 15% ditambah metionin dan lisin berturut-turut menunjukkan konsumsi pakan 80,49 dan 82,00 g/ekor/hari, pertambahan berat badan 34,29 dan 38,57g/ekor/hari, serta konversi pakan 2,32 dan 2,17. Sedangkan ayam yang diberi aras kalsium 0,5% dan 2,0% berturut-turut menunjukkan konsumsi pakan 81,41 dan 81,07g/ekor/hari, pertambahan berat badan 35,31 dan 37,55 (g/ekor/hari) serta konversi pakan 2,32 dan 2,17. Dari penelitian ini dapat disimpulkan bahwa dengan penambahan asam amino metionin dan lisin pada pakan berprotein 15% dan peningkatan level kalsium memberikan hasil yang baik terhadap penampilan ayam broiler.

(Kata kunci : Ayam broiler, Penampilan, Protein, Kalsium, Metionin, Lisin)

**THE EFFECT OF METHIONINE AND LYSINE SUPPLEMENTED
INTO RATION CONTAINING OF LOW PROTEIN
AND DIFFERENT CALCIUM LEVELS
ON BROILER PERFORMANCE**

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ABSTRACT

The experiment was conducted to investigate the effect of methionine and lysine supplemented into ration containing of low protein and different calcium levels on broiler performance. Eighty male day old chickens (DOC) of one week old hubbard strain were used in this study. The chickens were randomly divided into 4 groups with different rations. Each group had 5 replications of 4 broilers, each. The experimental diets were those of : RI (ration composed by 15% CP and 0.5% Ca); RII (ration composed by 15% CP and 2.0% Ca); RIII (ration composed by 15% CP + Methionine + Lysine and 0.5% Ca); RIV (ration composed by 15% CP + Methionine + Lysine and 2.0% Ca), respectively. The ration and water were given ad libitum. The collected data were those of feed consumption (FI), gain-weight (ADG) and feed conversion (FCR). The statistical analyses using a 2x2 factorial of variance analyses (CRD), followed for the significant means by Duncan's test (DMRT). The result indicated that the feed consumption was not affected significantly by protein level, as well as by and its interaction, while the ADG and FCR were affected significantly ($P < 0.05$) due to methionine and lysine supplementation. The broiler fed by ration containing of 15% CP and 15% CP + Methionine + Lysine resulted the feed consumption (FI) values of 80.49 and 82.00 g/bird/ day; ADG values were 34.29 and 38.57 g/bird/day and FCR were 2.32 and 2.17, respectively. The broiler fed by Ca levels of 0.5% and 2.0% resulted the feed consumption values of (FI) 81.41 and 81.07 g / bird / day; ADG 35.31 and 37.55 g / bird / day; and FCR 2.32 and 2.17, respectively. It was concluded that the supplementation of methionine and lysine amino acids into ration containing 15% CP and higher calcium level gave the best performance of broiler.

(Key words : Broiler, Performance, Protein, Calcium, Methionine, Lysine)