

PENGARUH PENAMBAHAN NANOKAPSUL KUNYIT TERHADAP KINERJA PRODUKSI AYAM KUB

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh nanokapsul kunyit terhadap kinerja pertumbuhan ayam kampung unggul balitbangtan (KUB). Penelitian dilaksanakan pada tanggal 4 April sampai dengan 19 Juni 2023. Pemeliharaan ayam KUB dilaksanakan di Sorolaten, Sidokarto, Godean, Sleman, Daerah Istimewa Yogyakarta. Materi penelitian yang digunakan adalah ayam KUB sebanyak 100 ekor dan nanokapsul kunyit. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola searah yang terdiri dari 5 perlakuan yaitu P1 (Air + Nanokapsul kunyit 0%); P2 (Air + Nanokapsul kunyit 2%); P3 (Air + Nanokapsul kunyit 4%); P4 (Air + Nanokapsul kunyit 6%); dan P5 (Air + Nanokapsul kunyit 8%). Masing-masing dilakukan ulangan sebanyak 4 kali, setiap pengulangan terdiri dari 5 ekor ayam. Variabel yang diamati yaitu konsumsi pakan, penambahan bobot badan, dan konversi pakan. Data dianalisis dengan menggunakan *Analysis of variance* (ANOVA), apabila terdapat perbedaan nyata maka dilakukan uji lanjut dengan uji DMRT (*Duncan Multiple Range Test*). Hasil penelitian menunjukkan bahwa hasil rerata konsumsi pakan perlakuan penambahan nanokapsul kunyit pada air minum ayam KUB dengan 0%; 2%; 4%; 6%; dan 8% berturut turut adalah 2570,08; 3929,33; 2329,48; 2861,21; dan 2138,79 g/ekor/42 hari. Konsumsi air minum adalah 636,57; 580,71; 581,55; 581,87; dan 584,64 ml/ekor/42 hari. Pertambahan bobot badan adalah 693,48; 669,78; 664,71; 700,03; dan 698,30 g/ekor/42 hari. Konversi pakan 3,71; 6,11; 3,64; 4,33; dan 3,15. Hasil analisis variasi menunjukkan bahwa penambahan nanokapsul kunyit pada air minum tidak berpengaruh nyata ($P > 0,05$) pada konsumsi pakan, konsumsi air minum, penambahan bobot badan dan konversi pakan. Disimpulkan bahwa penambahan nanokapsul kunyit 0-8 % tidak mempengaruhi kinerja pertumbuhan ayam KUB. Pada persentase 2% memberikan pengaruh lebih tinggi pada hasil konsumsi pakan dan konversi pakan. Pada persentase 6% memberikan pengaruh lebih tinggi pada hasil penambahan bobot badan. Pada persentase 0% memberikan pengaruh lebih tinggi pada hasil konsumsi air minum.

Kata kunci: Nanokapsul kunyit, Kinerja, Pertumbuhan, Ayam KUB

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THE EFFECT OF TURMERIC NANOCAPSULE ADDITION ON PRODUCTION PERFORMANCE OF KUB CHICKEN

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ABSTRACT

This study aims to determine the effect of turmeric nanocapsules on the growth performance of Balitbangtan superior native chickens (KUB). The research was conducted from April 4 to June 19, 2023. KUB chickens were raised in Sorolaten, Sidokarto, Godean, Sleman, Special Region of Yogyakarta. The research materials used were 100 KUB chickens and turmeric nanocapsules. This study used a completely randomized design (CRD) unidirectional pattern consisting of 5 treatments namely P1 (Water + 0% turmeric nanocapsules); P2 (Water + 2% turmeric nanocapsules); P3 (Water + 4% turmeric nanocapsules); P4 (Water + 6% turmeric nanocapsules); and P5 (Water + 8% turmeric nanocapsules). Each was replicated 4 times, each repetition consisting of 5 chickens. The observed variables were feed consumption, body weight gain, and feed conversion. Data were analyzed using Analysis of variance (ANOVA), if there were significant differences then further tests were carried out with the DMRT (Duncan Multiple Range Test) test. The results showed that the average feed consumption of the treatment of adding turmeric nanocapsules to the drinking water of KUB chickens with 0%; 2%; 4%; 6%; and 8% were 2570.08; 3929.33; 2329.48; 2861.21; and 2138.79 g/head/42 days, respectively. Drinking water consumption was 636.57; 580.71; 581.55; 581.87; and 584.64 ml/head/42 days. Body weight gain was 693.48; 669.78; 664.71; 700.03; and 698.30 g/head/42 days. Feed conversion was 3.71; 6.11; 3.64; 4.33; and 3.15. The results of variation analysis showed that the addition of turmeric nanocapsules to drinking water had no significant effect ($P > 0.05$) on feed consumption, drinking water consumption, body weight gain and feed conversion. It was concluded that the addition of 0-8% turmeric nanocapsules did not affect the growth performance of KUB chickens. At a percentage of 2% gives a higher influence on the results of feed consumption and feed conversion. At a percentage of 6% gives a higher influence on the results of body weight gain. At a percentage of 0% gives a higher influence on the results of drinking water consumption.

Keywords: Turmeric nanocapsules, Performance, Growth, KUB chicken

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