

**PENGARUH PAKAN RENDAH PROTEIN DENGAN PENAMBAHAN  
HERBAL MIX ADDITIVE TEHADAP KINERJA PERTUMBUHAN DAN  
ANIMAL WELFARE AYAM BROILER**

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**INTISARI**

Peningkatan efisiensi produksi ayam broiler menuntut penerapan strategi nutrisi yang mampu menekan biaya tanpa mengorbankan performa pertumbuhan maupun aspek *animal welfare*. Penelitian ini bertujuan untuk mengevaluasi pengaruh pemberian pakan rendah protein dengan penambahan *herbal mix additive* terhadap kinerja pertumbuhan dan *animal welfare* ayam broiler. Penambahan *herbal mix additive* merupakan langkah strategi untuk menanggulangi ketidakseimbangan nutrisi akibat pakan rendah protein dalam ransum. Sebanyak 1000 ekor DOC strain *Cob 500* dipelihara selama 35 hari. Pemeliharaan dilakukan berjumlah 100 ekor ayam yang disusun dalam lima ulangan. Perlakuan yang diterapkan yaitu pakan kontrol (komersial) dan RP+HMA (pakan rendah protein + *herbal mix additive*). Perlakuan RP+HMA diberikan mulai hari ke-13 hingga ke-35. Data kinerja pertumbuhan dianalisis dengan metode *independent sample T-Test* menggunakan SPSS, sedangkan data *animal welfare* menggunakan analisis deskriptif. Hasil penelitian menunjukkan bahwa perlakuan (RP+HMA) mengalami peningkatan nilai *feed intake* yang signifikan dibandingkan dengan kontrol pada fase *grower* sebesar 9,75% ( $P < 0,05$ ). Sementara itu, perlakuan RP+HMA memiliki nilai *feed conversion ratio* yang lebih tinggi sebesar 25,21% pada fase *finisher* dan 13,65% pada hasil kumulatif dibandingkan kontrol ( $P < 0,05$ ), sedangkan pada indeks performa perlakuan RP+HMA terjadi penurunan sebesar 16,17% dibandingkan kontrol ( $P < 0,05$ ). Selanjutnya, perlakuan RP+HMA cenderung meningkatkan skor *foot pad dermatitis*, *hock burn*, dan *breast dermatitis* dibandingkan kontrol. Berdasarkan penelitian, dapat disimpulkan bahwa perlakuan RP+HMA dapat menurunkan kinerja pertumbuhan terhadap *feed intake* fase *grower* sekaligus meningkatkan nilai *feed conversion ratio* fase *finisher* dan kumulatif, serta nilai indeks performa. Sementara itu, perlakuan RP+HMA belum dapat mempertahankan nilai *animal welfare* yang setara dengan perlakuan kontrol.

**Kata Kunci** : Ayam Broiler, *Animal Welfare*, Pakan Rendah Protein, *Herbal Mix Additive*

**THE EFFECT OF LOW-PROTEIN FEED WITH THE  
ADDITION OF HERBAL MIX ADDITIVE ON GROWTH  
PERFORMANCE AND ANIMAL WELFARE IN BROILER  
CHICKENS**

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**ABSTRACT**

Improving broiler chicken production efficiency requires the implementation of nutritional strategies that can reduce costs without compromising growth performance or animal welfare. This study aims to evaluate the effect of feeding a low-protein diet supplemented with a herbal mix additive on the growth performance and animal welfare of broiler chickens. The addition of a herbal mix additive is a strategic measure to address nutrient imbalances caused by the low-protein diet. A total of 1,000 Cob 500-strain day-old chicks (DOC) were reared for 35 days. The rearing was conducted with 100 chicks per group, arranged into five replicates. The treatments applied were control feed (commercial) and RP+HMA (low-protein feed + herbal mix additive). The RP+HMA treatment was administered from day 13 to day 35. Growth performance data were analyzed using the independent samples t-test with SPSS, while animal welfare data was assessed using descriptive analysis. The results showed that the RP+HMA treatment exhibited a significant increase in feed intake compared to the control during the grower phase, amounting to 9.75% ( $P < 0,05$ ). Meanwhile, the RP+HMA treatment had a higher feed conversion ratio by 25.21% during the finisher phase and 13.65% in cumulative results compared to the control ( $P < 0,05$ ), while the performance index for the RP+HMA treatment decreased by 16.17% compared to the control ( $P < 0,05$ ). Furthermore, the RP+HMA treatment tended to increase scores for foot pad dermatitis, hock burn, and breast dermatitis compared to the control. Based on the study, it can be concluded that the RP+HMA treatment can reduce growth performance regarding feed intake in the grower phase while simultaneously increasing the feed conversion ratio in the finisher and cumulative phases and the performance index. Meanwhile, the RP+HMA treatment has not yet been able to maintain animal welfare values equivalent to those of the control treatment.

**Keywords:** Broiler Chickens, Animal Welfare, Low Protein Feed, Herbal Mix Additive