

## **PENGARUH PENAMBAHAN TEPUNG ALFALFA (*Medicago sativa* L.) PADA RANSUM TERHADAP PRODUKTIVITAS AYAM PETELUR**

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### **INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian Alfalfa (*Medicago sativa* L.) terhadap produktivitas ayam petelur. Penelitian ini menggunakan 108 ekor ayam petelur strain *Hy-Line* 26 minggu. Ayam diletakkan pada kandang baterai secara acak dalam tiga perlakuan, setiap perlakuan terdapat enam replikasi yang terdiri dari enam ekor ayam. Perlakuan 1 (A0) penggunaan pakan basal 100%, perlakuan 2 (A1) penggunaan pakan basal 99% dengan penambahan Alfalfa 1%, perlakuan 3 (A3) penggunaan pakan basal 97% dengan penambahan Alfalfa 3%. Pemeliharaan dilakukan selama tiga periode dengan 28 hari untuk setiap periode. Pemberian pakan dan air minum dilakukan secara *ad libitum*. Pengamatan produktivitas dilakukan setiap hari meliputi jumlah dan berat telur, konsumsi pakan. Perhitungan produktivitas dilakukan setiap minggu meliputi *Feed Conversion Ratio* (FCR), dan *Hen Day Average* (HDA) serta dilakukan analisis *Income Over Feed Cost* (IOFC) pada akhir pemeliharaan. Data dianalisis dengan menggunakan ANOVA (analisis variansi) berdasarkan Rancangan Acak Lengkap Pola Faktorial antara perlakuan Alfalfa dengan periode pemeliharaan. Apabila terdapat perbedaan antar perlakuan dilanjutkan dengan uji beda *mean* menggunakan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan penambahan Alfalfa dalam ransum menurunkan ( $P < 0,05$ ) jumlah konsumsi pakan dan periode pemeliharaan meningkatkan ( $P < 0,01$ ) berat telur. Tidak terdapat interaksi antara perlakuan penambahan Alfalfa dengan periode pemeliharaan. Nilai IOFC A3 menunjukkan hasil yang paling besar. Kesimpulan dari penelitian ini yaitu Alfalfa dapat digunakan sebagai pakan substitusi ayam petelur untuk menghemat biaya pakan tanpa menurunkan produktivitas.

**Kata kunci:** Alfalfa, Ayam Petelur, Berat Telur, *Feed Conversion Ratio*, *Hen Day Average*, Produktivitas

## THE USE OF ALFALFA (*Medicago sativa* L.) MEAL FOR LAYING HEN PERFORMANCE

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### ABSTRACT

The research was conducted to determine the effect of Alfalfa (*Medicago sativa* L.) substitution for laying hen performance. One hundred and eight *Hy-Line* strain on 26 weeks were put in battery cage and divided randomly into three treatments, (with six replications and every replication consisted six hens). The treatments were used 100% basal diet for control (A0), 99% basal diet + 1% Alfalfa (A1), and 97% basal diet + 3% Alfalfa (A3). Data recorded every day on three periods, with twenty-eight days per period. Feed and drink were given by *ad libitum* method. The data collected every day consist of egg production, egg weight, feed consumption, while laying hen performance counted every week consist of *Feed Conversion Ratio* (FCR), *Hen Day Average* (HDA). In addition, the estimation of *Income Over Feed Cost* (IOFC) counted at the end of this period. Data were analyzed by factorial of classification of variance analysis (ANOVA) between Alfalfa and period of treatment followed by testing significant means Duncan's Multiple Range Test (DMRT). The results showed that Alfalfa substitution decreased ( $P < 0,05$ ) the feed consumption, while the period of treatment increased ( $P < 0,01$ ) the egg weight. Meanwhile, there was no interaction between Alfalfa and period of treatment. Additionally, the IOFC showed that A3 had the highest estimation. According to this research, it can be concluded that Alfalfa can be used for substitution on laying hen's diet due to decrease the feed cost (rise feed efficiency) moreover without declined its production.

**Keywords:** Alfalfa, Laying Hen, Egg Weight, *Feed Conversion Ratio*, *Hen Day Average*, Performance