

## INTISARI

### EFEK SUPLEMENTASI KOMBINASI HERBAL, PROBIOTIK, DAN PROPOLIS TERHADAP PERFORMA AYAM PETELUR PERIODE PRODUKSI

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Penggunaan *Antibiotic Growth Promoter* (AGP) dalam industri peternakan unggas telah lama diterapkan sebagai strategi untuk meningkatkan produksi ternak, tetapi penggunaan AGP dalam jangka panjang dapat menimbulkan berbagai risiko seperti timbulnya resistensi antibiotik yang membahayakan kesehatan ternak dan manusia sehingga penggunaannya sudah dilarang di Indonesia. Peternak memerlukan alternatif imbuhan pakan yang lebih aman, salah satu alternatif yang potensial adalah penggunaan imbuhan pakan herbal seperti jahe merah (*Zingiber officinale* var. *Rubrum*) dan temulawak (*Curcuma xanthorrhiza*), probiotik seperti *Lactobacillus acidophilus* dan *Bacillus subtilis*, serta propolis. Penelitian ini bertujuan untuk mengevaluasi pengaruh pemberian imbuhan pakan kombinasi Herbal-Probiotik-Propolis (HPP) terhadap performa ayam petelur fase produksi, meliputi parameter berat telur, *Hen Day Production* (HDP), *Hen House Production* (HHP), dan *Feed Conversion Rate* (FCR). Sebanyak 40 ekor ayam petelur strain *Isa Brown* berumur 16 minggu dibagi secara acak menjadi dua kelompok perlakuan, yaitu kelompok kontrol (K) dan kelompok perlakuan (HPP) yang diberi kombinasi imbuhan pakan HPP. Pemberian pakan dilakukan dua kali sehari sebanyak 100 gram/ekor dan ditambahkan imbuhan pakan dengan dosis 3.5 kg/ton pakan sejak ayam berumur 14 minggu. Telur dihitung dan ditimbang selama tiga bulan untuk mendapatkan *recording* berat telur, HHP, dan HDP. Sisa pakan dihitung untuk mengetahui feed intake yang digunakan untuk menghitung FCR, kemudian hasil dianalisa menggunakan *Independent T-Test* di *software* SPSS. Hasil penelitian menunjukkan bahwa rata-rata berat telur pada kelompok K dan HPP masing-masing sebesar  $53,91 \pm 2,88$  gram (K) dan  $53,70 \pm 2,27$  gram (HPP), nilai HDP berturut-turut sebesar  $75,17 \pm 20,05\%$  (K) dan  $76,33 \pm 15,76\%$  (HPP), nilai HHP berturut-turut sebesar  $60,17 \pm 16,07\%$  (K) dan  $61 \pm 12,87\%$  (HPP), serta nilai FCR sebesar  $2,66 \pm 1,15$  (K) dan  $2,10 \pm 0,66$  (HPP). Kesimpulan dari penelitian ini adalah imbuhan pakan HPP meningkatkan nilai HDP dan HHP, juga menurunkan nilai FCR meski secara statistik tidak signifikan ( $p > 0,05$ ).

**Kata kunci:** ayam layer, Herbal-Probiotik, produksi telur, HDP, FCR

## ABSTRACT

### EFFECTS OF COMBINED HERBAL, PROBIOTIC, AND PROPOLIS SUPPLEMENTATION ON THE PERFORMANCE OF LAYING HENS DURING THE PRODUCTION PERIOD

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The use of Antibiotic Growth Promoters (AGPs) in the poultry industry has long been implemented as a strategy to enhance livestock production. However, long-term use of AGPs can lead to various risks, such as the emergence of antibiotic resistance, which poses a threat to both animal and human health. As a result, AGP use has been banned in Indonesia. Therefore, safer alternatives are needed, one of which is the use of herbal feed additives such as red ginger (*Zingiber officinale* var. *Rubrum*) and *temulawak* (*Curcuma xanthorrhiza*), probiotics such as *Lactobacillus acidophilus* and *Bacillus subtilis*, as well as propolis. This study aimed to evaluate the effects of a combination of Herbal-Probiotic-Propolis (HPP) feed additives on the performance of laying hens during the production phase, including parameters such as egg weight, Hen Day Production (HDP), Hen House Production (HHP), and Feed Conversion Rate (FCR). A total of 40 Isa Brown laying hens aged 16 weeks were randomly divided into two treatment groups: a control group (K) and a treatment group (HPP) receiving the HPP feed additive combination. Feed was given twice daily at 100 grams per bird, with the additive administered at a dosage of 3.5 kg per ton of feed starting from 14 weeks of age. Eggs were collected and weighed over a three-month period to record egg weight, HHP, and HDP. Feed leftovers were measured to calculate feed intake and FCR. The data were analyzed using an Independent T-Test with SPSS software. The results showed that the average egg weight in the control (K) and HPP groups was  $53.91 \pm 2.88$  grams and  $53.70 \pm 2.27$  grams, respectively. The HDP values were  $75.17 \pm 20.05\%$  (K) and  $76.33 \pm 15.76\%$  (HPP), HHP values were  $60.17 \pm 16.07\%$  (K) and  $61 \pm 12.87\%$  (HPP), and the FCR values were  $2.66 \pm 1.15$  (K) and  $2.10 \pm 0.66$  (HPP). In conclusion, the HPP feed additive improved HDP and HHP values and reduced FCR, although the differences were not statistically significant ( $p > 0.05$ ).

**Key words:** layer chicken, Herbal-Probiotic, egg production, HDP, FCR