

ABSTRACT

THE EFFECT OF SUPPLEMENTATION OF MAGGOT BLACK SOLDIER FLY (BSF) FLOUR IN RATION ON ERYTHROCYTES, HEMOGLOBIN, AND HEMATOCRIT BLOOD OF JOPER FEMALE CHICKEN

By

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This study aims to determine the best dose of maggot flour on erythrocytes, hemoglobin, and blood hematocrit of female joper chickens. This research was conducted in February–March 2022 and is located at the Joper Daffa Chicken Farm, Labuhan Dalem, Tanjung Senang District, Bandar Lampung City. Examination of erythrocytes, hemoglobin, and hematocrit was carried out at the Lampung Veterinary Center, Bandar Lampung. The experimental design used was a completely randomized design with 4 treatments and 5 replications. The treatments were rations without supplementation of maggot flour (P0), rations with 5% maggot flour supplementation (P1), rations with 10% maggot flour supplementation (P2), and rations with 15% maggot flour supplementation (P3). The data obtained were analyzed using analysis of variance with a significance level of 5% and continued with the orthogonal polynomial test. The result of the further test of orthogonal polynomials showed a very significant effect ($P < 0,01$) on erythrocytes, hemoglobin, and hematocrit of blood female joper chickens. The results of the orthogonal polynomials test with a cubic pattern with the equation for erythrocytes is $y = 2.692 - 0.1184x + 0.0359x^2 - 0.002x^3$, on hemoglobin $y = 7.6 - 0.0493x + 0.0256x^2 - 0.0015x^3$, and on the hematocrit $y = 27,4 - 0.58x + 0.196x^2 - 0.0112x^3$. The optimum dose of maggot flour supplementation on erythrocytes, hemoglobin, and hematocrit were 9.99%, 15.62%, and 10.14%, respectively.

Keywords: Erythrocytes, Hematocrit, Hemoglobin, Joper, Maggot.

ABSTRAK

PENGARUH SUPLEMENTASI TEPUNG MAGGOT *BLACK SOLDIER FLY* (BSF) DALAM RANSUM TERHADAP ERITROSIT, HEMOGLOBIN, DAN HEMATOKRIT DARAH AYAM JOPER BETINA

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Penelitian ini bertujuan untuk mengetahui dosis terbaik pemberian tepung maggot terhadap eritrosit, hemoglobin, dan hematokrit darah ayam joper betina. Penelitian ini dilaksanakan pada Februari–Maret 2022 dan berlokasi di Peternakan Ayam Joper Daffa, Labuhan Dalem, Kecamatan Tanjung Senang, Kota Bandar Lampung. Pemeriksaan eritrosit, hemoglobin, dan hematokrit dilakukan di Balai Veteriner Lampung, Bandar Lampung. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 5 ulangan. Perlakuan yang diberikan yaitu ransum tanpa suplementasi tepung maggot (P0), ransum dengan suplementasi 5% tepung maggot (P1), ransum dengan suplementasi 10% tepung maggot (P2), dan ransum dengan suplementasi 15% tepung maggot (P3). Data yang diperoleh dianalisis menggunakan analisis ragam dengan taraf nyata 5% dan dilanjutkan dengan uji polinomial ortogonal. Hasil uji lanjut polinomial ortogonal menunjukkan pengaruh yang sangat nyata ($P < 0,01$) terhadap eritrosit, hemoglobin, dan hematokrit pada ayam joper betina. Hasil uji polinomial ortogonal berpola kubik dengan persamaan pada eritrosit yaitu $y = 2,692 - 0,1184x + 0,0359x^2 - 0,002x^3$, pada hemoglobin $y = 7,6 - 0,0493x + 0,0256x^2 - 0,0015x^3$, dan pada hematokrit $y = 27,4 - 0,58x + 0,196x^2 - 0,0112x^3$. Dosis suplementasi tepung maggot optimum pada eritrosit, hemoglobin, dan hematokrit berturut-turut adalah 9,99%, 15,62%, dan 10,14%.

Kata Kunci: Eritrosit, Hematokrit, Hemoglobin, Joper, Maggot.