

ESTIMASI NILAI HERITABILITAS DAN RIPITABILITAS BERAT TELUR, BERAT *DAY OLD CHICK* (DOC) DAN INDEKS TELUR PADA PERKAWINAN AYAM LEGUND DAN AYAM NORMAL

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INTISARI

Penelitian ini bertujuan untuk mengestimasi nilai heritabilitas dan ripitabilitas berat telur, indeks telur dan berat *Day Old Chick* (DOC) pada perkawinan ayam legund dan ayam normal. Tiga puluh ekor ayam yang terdiri dari 3 ekor ayam jantan legund, 3 ekor ayam jantan normal, 12 ekor ayam betina legund dan 12 ekor ayam betina normal, ditempatkan dalam 6 kandang yang berbeda. Masing-masing kandang berjumlah 5 ekor ayam yang terdiri dari 1 ekor ayam jantan, 2 ekor ayam legund betina dan 2 ekor ayam normal betina. Data yang diambil adalah produksi telur, berat telur, indeks telur dan berat DOC. Data dianalisis dengan 2 model analisis variansi yaitu *Nested design (full sib)* dan *Completely Randomized Design (CRD) One-Way Classification* dengan korelasi antar kelas yang masing-masing untuk mengestimasi nilai heritabilitas dan ripitabilitas. Hasil penelitian menunjukkan nilai heritabilitas berat telur dan berat DOC ayam legund hanya tampak komponen keseluruhan pejantan dan induk yaitu 0,94 dan 0,99 sedangkan untuk indeks telur untuk komponen pejantan, induk dan keseluruhan pejantan dan induk adalah 0,73; 0,07; dan 0,39. Nilai heritabilitas berat telur dan berat DOC ayam normal hanya tampak pada komponen pejantan yaitu 0,12 dan 0,14 sedangkan heritabilitas indeks telur tampak pada komponen keseluruhan pejantan dan induk yaitu 0,43. Nilai ripitabilitas berat telur, indeks telur dan berat DOC ayam legund $0,67 \pm 0,10$; $0,36 \pm 0,11$ dan $0,66 \pm 0,11$ sedangkan ripitabilitas ayam normal $0,37 \pm 0,03$; $0,44 \pm 0,03$ dan $0,46 \pm 0,12$. Nilai heritabilitas (berat telur, indeks telur dan berat DOC) dan ripitabilitas (berat telur dan berat DOC) ayam legund lebih tinggi daripada ayam normal, namun nilai ripitabilitas indeks telur pada ayam legund lebih rendah daripada ayam normal.

(Kata kunci: Heritabilitas, Ripitabilitas, Ayam Legund, Ayam Normal, Berat Telur, Indeks Telur, Berat *Day Old Chick*(DOC))

THE ESTIMATED OF HERITABILITY AND REPEATABILITY VALUE OF EGG WEIGHT, EGG INDEX AND *DAY OLD CHICK*(DOC) WEIGHT ON NAKED NECK CHICKEN AND NORMAL CHICKEN'S MATING

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ABSTRACT

The research was conducted to estimate the heritability and repeatability value of egg weight, egg index and *Day Old Chick*(DOC) weight on naked neck and normal chicken's mating. Thirty chickens consisting of 3 sires of naked neck, 3 sires of normal chicken, 12 dams of naked neck and 12 dams of normal chicken. These chickens are placed in 6 different cages. The cages consist of 5 chickens were 1 sire, 2 dams of naked neck and 2 dams of normal chicken, respectively. To estimate heritability value, data was analysed by analysis of nested design with full sib method. While to estimate repeatability value, data was analysed by Completely Randomized Design (CRD) One-way Classification with interclass correlation. The result showed that the heritability of naked neck chicken appeared on sire and dam components were 0,94 and 0,99 for egg weight and DOC weight, and based on sire, dam and sire and dam components were 0,73; 0,07; and 0,39 for egg index. The heritability of egg weight and DOC weight of normal chicken appeared on sire component were 0,12 and 0,14 and for the heritability of egg index appeared on sire and dam components was 0,43. The repeatability of egg weight, egg index and DOC weight for naked neck were $0,67 \pm 0,10$; $0,36 \pm 0,11$ and $0,66 \pm 0,11$ respectively. The repeatability of egg weight, egg index and DOC weight for normal chicken were $0,37 \pm 0,03$; $0,44 \pm 0,03$ and $0,46 \pm 0,12$ respectively. The value of heritability (egg weight, egg index and DOC weight) and repeatability (egg weight and DOC weight) of naked neck chicken is higher than normal chicken, but the repeatability of egg index on naked neck chicken is lower than normal chicken.

(Keywords: Heritability, Repeatability, Naked Neck, Normal Chicken, Egg Weight, Egg Index, *Day Old Chicken* (DOC) Weight)