PERFORMA DAN ESTIMASI NILAI HERITABILITAS BOBOT BADAN DAN UKURAN TUBUH F3 PERSILANGAN AYAM MURUNG PANGGANG DAN KAMPUNG UNGGUL BALITBANGTAN (KUB) FASE *GROWER*

Agus Khusyairi
21/483116/PT/09116

INTISARI

Heritabilitas merupakan estimasi pewarisan sifat dari tetua pada keturunannya yang digambarkan melalui proporsi ragam genetik terhadap ragam fenotip. Penelitian ini bertujuan untuk mengetahui performa dan estimasi nilai heritabilitas pada bobot badan serta ukuran tubuh ayam F3 hasil persilangan ayam Murung Panggang jantan dan KUB betina pada fase *grower*. Penelitian dilaksanakan Desember 2024 hingga Januari 2025 di Kecamatan Semanu, Gunung Kidul, menggunakan dua pola persilangan ayam Murung Panggang jantan, dengan masing-masing betina KUB Jatinom (pola 1) dan KUB Bogor (pola 2). Data yang dianalisis meliputi performa (bobot badan dan ukuran tubuh) sebanyak 69 ekor untuk pola 1 dan 98 ekor untuk pola 2, serta data heritabilitas sebanyak 135 ekor (pola 1) dan 315 ekor (pola 2) pada umur 6, 8, dan 10 minggu. Data ukuran tubuh terdiri dari lebar dada, lingkar dada, panjang *shank*, dan panjang sayap. Analisis performa dilakukan berdasarkan jenis kelamin menggunakan uji *independent sample t-test*, sedangkan estimasi heritabilitas menggunakan metode saudara tiri sebapak dengan analisis variansi rancangan acak lengkap pola searah. Hasil menunjukkan bahwa pola persilangan yang berbeda berpengaruh nyata terhadap bobot badan, lingkar dada, panjang *shank,* dan panjang sayap ($P<0,05$), namun tidak berpengaruh nyata terhadap bobot badan umur 6 minggu dan lebar dada ($P>0,05$). Performa bobot badan dan ukuran tubuh pola 1 lebih tinggi dibandingkan pola 2. Hasil estimasi nilai heritabilitas bobot badan dan ukuran tubuh ayam F3 hasil persilangan berkisar antara 0,01 sampai 0,75. Berdasarkan penelitian tersebut dapat disimpulkan bahwa nilai heritabilitas yang diperoleh termasuk kategori rendah hingga tinggi.

Kata kunci: Ayam Kampung Unggul Balitbangtan, Ayam Murung Panggang, Bobot Badan, Heritabilitas, Ukuran Tubuh

PERFORMANCE AND ESTIMATION OF HERITABILITY VALUES OF BODY WEIGHT AND BODY SIZE OF F3 CROSSES OF MURUNG PANGGANG AND KAMPUNG UNGGUL BALITBANGTAN (KUB) CHICKEN IN THE GROWER PHASE

Agus Khusyairi
21/483116/PT/09116

ABSTRACT

Heritability represents the proportion of phenotypic variance attributable to genetic variance, providing an estimate of the degree to which traits are inherited from parents to offspring.This study aimed to evaluate the performance and estimate the heritability values of body weight and body measurements in F3 chickens resulting from crossbreeding between Murung Panggang males and KUB females during the grower phase. The research was conducted from December 2024 to January 2025 in Semanu District, Gunung Kidul, using two crossbreeding patterns: Murung Panggang males with KUB Jatinom females (pattern 1) and with KUB Bogor females (pattern 2). Performance data (body weight and body measurements) were collected from 69 chickens in pattern 1 and 98 chickens in pattern 2, while heritability data were obtained from 135 chickens (pattern 1) and 315 chickens (pattern 2) at 6, 8, and 10 weeks of age. Body measurements included chest width, chest circumference, *shank* length, and wing length. Performance analysis was conducted by sex using independent sample t-tests, and heritability estimates were calculated using the paternal half-sib method with one-way completely randomized design analysis of variance. The results showed that crossbreeding patterns significantly affected body weight, chest circumference, *shank* length, and wing length ($P<0.05$), but had no significant effect on body weight at 6 weeks and chest width ($P>0.05$). Chickens from pattern 1 exhibited superior performance in body weight and body measurements compared to pattern 2. Heritability estimates for body weight and body measurements ranged from 0.01 to 0.75, indicating low to high heritability categories.

Key words: Body Measurements, Body Weight, Heritability, Kampung Unggul Balitbangtan Chicken, Murung Panggang Chicken