

**PEHGARUH KOHDISI BULU  
TERBALIK HOHOSIGOT DAN HETEROSIGOT  
PADA AYAH KAHPBHG UMUR 0 SAHPAI 12 KIHGGU  
TERHADAP PERTUMBUHAN**

Sarjiyana  
90/77026/PT/02625

**1NT1SARX**

Penelitian ini bertujuan untuk mengetahui pengaruh kondisi bulu terbalik homosigot dan heterosigot pada ayam kampung terhadap pertumbuhan. Sebanyak 20 ekor ayam walik betina dan lima ekor ayam walik jantan dibagi ke dalam empat kelompok yang masing-masing terdiri dari seekor pejantan dan lima ekor betina. Anak ayam yang dihasilkan dipelihara secara intensif selama 12 minggu, dikelompokkan berdasar periode penetasan dan kondisi bulunya. Parameter yang diamati yaitu bobot badan, pertambahan bobot badan, dan konsumsi pakan. Data yang diperoleh dianalisis dengan Completely Randomised Design pola searah dan bila terdapat perbedaan dilanjutkan dengan Duncan's Multiple Range Test. Kondisi bulu diuji dengan uji chi-square. Analisis variansi pola tersarang digunakan untuk menghitung heritabilitas bobot badan dan pertambahan bobot badan. Analisis kovariansi pola tersarang digunakan untuk menghitung korelasi genotip dan fenotip di antara bobot badan. Dari hasil analisis statistik menunjukkan bahwa kondisi bulu terbalik homosigot dan heterosigot berpengaruh tidak nyata terhadap bobot badan, pertambahan bobot badan, dan konsumsi pakan. Semua pasangan menghasilkan keturunan dengan pola penyebaran bulu sesuai dengan hukum Mendell, sedangkan populasi keseluruhan penyimpanannya nyata ( $P < 0,05$ ). Untuk umur 8 minggu, frekuensi genetik populasi keseluruhan mengikuti hukum keseimbangan Hardy-Weinberg. Nilai heritabilitas bobot badan dan pertambahan bobot badan berdasar komponen pejantan adalah tinggi. Nilai heritabilitas bobot badan yang dikoreksi dengan kondisi bulu dan interaksinya dengan induk dalam pejantan umumnya menunjukkan peningkatan, sedangkan untuk nilai heritabilitas pertambahan bobot badan menunjukkan penurunan. Korelasi genotip di antara bobot badan berdasar komponen pejantan kecuali terhadap bobot badan saat DOC, mempunyai nilai mulai dari 0,843 sampai 1,800. Sedangkan korelasi fenotip di antara bobot badan kecuali terhadap bobot badan saat DOC mempunyai nilai mulai dari 0,451 sampai 0,951.

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Kata Kunci: Bulu Terbalik, Pertumbuhan, Heritabilitas, Korelasi Genotip dan Fenotip.

**EFFECT OF FRIZZLE FEATHER IN HOMOZYGOTE  
AND HETEROZYGOTE CONDITION OF 0 TO 12 WEEKS OLD  
ON GROWTH OF NATIVE CHICK**

**Sarjiyana  
90/77026/PT/02625**

**ABSTRACT**

This study was done to study the effect of frizzle feathers in homozygote and heterozygote condition of 0 to 12 weeks old on growth of native chick. Twenty frizzle feathers hens and four frizzle feathers cocks were divided in four groups and each group consists of a cock and five hens. The chickens were raised up intensively for 12 weeks, grouped based on hatching period and feather conditions. The collected data were the feather condition, body weight, body weight gain and feed consumption. The data were analyzed with one way variance analysis of Completely Randomized Design for body weight, body weight gain and feed consumption, and the different means of each treatment were tested by Duncan's Multiple Range Test. The feather condition was analyzed with Chi-square test due to Mendell's Law. Hierarchical analysis of variance was used to estimate heritabilities of body weight and body weight gain. Hierarchical analysis of covariance was used to estimate genotype and phenotype correlation between the bodies weight. The results showed that the effect of frizzle feather in homozygote and heterozygote condition was not significant on growth and feed consumption. The feather condition of chicken from all pairs of mating followed by Mendell's Law. Heritabilities of body weight and body weight gain were high, except for DOC. Heritability that corrected with feather condition and its interaction with hen within cock, generally was higher for body weight and lower for body weight gain. The genotype correlation between bodies weight based on sire component was 0.843 to 1.800 and the phenotype correlation was from 0.451 to 0.951.

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Key Words: Frizzle Feathers, Growth, Heritability,  
Genotype and Phenotype Correlation