

**STRUKTUR HISTOLOGIS OTOT PEKTORALIS, *GASTROCNEMIUS*, dan PERFORMA PERTUMBUHAN AYAM BROILER [*Gallus gallus gallus* (Linnaeus, 1758)] SETELAH PEMBERIAN BUBUK GOLOBA [*Hornstedtia scottiana* (F.Muell.) K. Schum]**

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**INTISARI**

Industri peternakan unggas banyak memanfaatkan ayam broiler sebagai prioritas utama untuk memenuhi kebutuhan protein masyarakat. Pakan merupakan faktor penting yang menentukan kualitas pertumbuhan dan kualitas daging ayam broiler, namun pakan yang digunakan dalam peternakan masih menggunakan pakan komersial yang harganya relatif mahal. Tanaman goloba [*Hornstedtia scottiana* (F.Muell.) K. Schum.] merupakan tanaman endemik yang tumbuh liar di daerah Maluku Utara dan Sulawesi. Bubuk Goloba (BG) belum banyak dimanfaatkan sebagai pakan alternatif dalam rangka peningkatan performa pertumbuhan ayam broiler. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian BG untuk meningkatkan struktur histologis otot pektoralis mayor, *gastrocnemius* dan performa pertumbuhan ayam broiler. Penelitian ini menggunakan 300 *Day Old Chicks* (DOC) ayam broiler *unisex strain MB 202* yang dipelihara sampai umur 21 hari. Penelitian ini menggunakan rancangan acak lengkap, dengan 5 kelompok serta 3 ulangan, dan setiap kelompok ulangan berisi 20 ekor DOC. Kelompok perlakuan pada penelitian ini yaitu terdiri atas perlakuan P0 (pakan basal tanpa BG), P1 (BG 0,625%/kg pakan basal), P2 (BG 1,25%/kg pakan basal), P3 (BG 2,5%/kg pakan basal), dan P4 (BG 5%/kg pakan basal). Parameter yang diamati adalah struktur luas area otot pektoralis mayor, histologis otot pektoralis mayor dan *gastrocnemius*, performa pertumbuhan, serta organ visera ayam broiler. Analisis data penelitian menggunakan uji *one way ANOVA* dan dilanjutkan uji Duncan dengan taraf signifikansi  $P < 0,05$ . Hasil penelitian menunjukkan pemberian BG konsentrasi 5% (P4) berpengaruh signifikan meningkatkan luas area otot pektoralis, struktur histologis seperti luas area fasikulus dan *myofiber* pada otot pektoralis dan *gastrocnemius* dibandingkan dengan kontrol. pemberian BG 5% (P4) juga dapat meningkatkan performa pertumbuhan ayam broiler meliputi berat badan, morfometri tubuh, dan efisiensi pakan. Rasio organ visera pada pemberian BG 5% (P4) mampu meningkatkan pertumbuhan organ jantung dan lien. Pemberian BG konsentrasi 5% (P4) pada pakan dapat digunakan sebagai *feed additive* untuk meningkatkan pertumbuhan ayam broiler.

*Kata Kunci: Ayam Broiler, Bubuk Goloba, Organ Visera, Otot Pektoralis, Otot Gastrocnemius, Performa Pertumbuhan.*

**HISTOLOGICAL STRUCTURE OF THE PEKTORALIS MUSCLE, GASTROCNEMIUS, and GROWTH PERFORMANCE OF BROILER [*Gallus gallus gallus* (Linnaeus, 1758)] AFTER ADDITION OF GOLOBA [*Hornstedtia scottiana* (F. Muell.) K. Schum.] POWDER**

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**ABSTRACT**

The poultry farming industry uses broiler chickens as a top priority to meet the protein needs of the community. Feed is an important factor that determines the growth quality and meat quality of broiler chickens, but the feed used in farms still uses commercial feed which is relatively expensive. The goloba plant [*Hornstedtia scottiana* (F. Muell.) K. Schum.] is an endemic plant that grows wild in North Maluku and Sulawesi. Goloba Powder (BG) has not been widely used as an alternative feed in order to increase the growth performance of broiler chickens. This study aims to determine the effect of BG administration to improve the histological structure of the pectoralis major, gastrocnemius muscles and the growth performance of broiler chickens. This study used 300 Day Old Chicks (DOC) unisex broiler strain MB 202 reared up to 21 days of age. This study used a completely randomized design, with 5 groups and 3 replications, and each group consisted of 20 DOCs. The treatment group in this study consisted of P0 (basal feed without BG), P1 (BG 0.625%/kg basal feed), P2 (BG 1.25%/kg basal feed), P3 (BG 2.5%/kg basal feed), and P4 (BG 5%/kg basal feed). Parameters observed were the broad structure of the pectoralis major muscle area, histology of the pectoralis major and gastrocnemius muscles, growth performance, and visceral organs of broiler chickens. Analysis of research data used the one way ANOVA test and continued with Duncan's test with a significance level of  $P < 0.05$ . The results showed that administration of BG at a concentration of 5% (P4) had a significant effect on increasing the area of the pectoralis muscle, histological structures such as fascicle area and *myofiber* in the pectoralis and gastrocnemius muscles compared to controls. giving of 5% BG (P4) can also improve broiler growth performance including body weight, body morphometry, and feed efficiency. The ratio of visceral organs in the giving of 5% BG (P4) can increase the growth of the heart and spleen organs. Giving BG concentration of 5% (P4) in feed can be used as a feed additive to increase the growth of broiler chickens.

**Keywords:** *Broiler Chicken, Goloba Powder, Viscera Organ, Pectoralis Muscle, Gastrocnemius muscle, Growth Performance.*