

**STRUKTUR HISTOLOGIS OTOT PEKTORALIS DAN
PERFORMA PERTUMBUHAN AYAM BROILER [Gallus gallus
gallus (Linnaeus, 1758)] SETELAH PEMBERIAN *INFUSED*
WATER BUAH NAGA MERAH (*Hylocereus polyrhizus* (F.A.C.
Weber) Britton & Rose)**

**Adi Susanto
19/447322/PBI/01601**

INTISARI

Ayam broiler memiliki masa panen yang singkat, daging ayam broiler banyak dikonsumsi masyarakat Indonesia, karena harganya lebih murah dan memiliki tekstur daging lebih lembut. Pertumbuhan ayam broiler dapat dipicu dengan *Antibiotics Growth Promoters* (AGP), tetapi penggunaan AGP telah dilarang berbagai negara. Buah naga merah memiliki senyawa metabolit sekunder, berfungsi sebagai antioksidan, dan antibiotik alami, berfungsi sebagai pemicu pertumbuhan. Penelitian ini bertujuan untuk mengetahui efek pemberian *infused water* buah naga merah (IWBNM) dalam air minum terhadap struktur histologis otot pektoralis dan performa pertumbuhan ayam broiler. Penelitian ini menggunakan 300 DOC ayam broiler jantan strain Loughmann MB 202 yang dipelihara sampai umur 21 hari. Penelitian ini menggunakan rancangan acak lengkap, dengan 5 kelompok serta 3 ulangan, dan tiap kelompok ulangan berisi 20 ekor DOC. Kelompok P0 (Perlakuan 0 = air biasa), P1 (IWBNM 0,25%), P2 (IWBNM 0,50%), P3 (IWBNM 1%), dan P4 (IWBNM 2%). Parameter yang diamati adalah struktur histologis otot pektoralis dan performa pertumbuhan ayam broiler. Analisis data penelitian menggunakan uji *one way* ANOVA dan dilanjutkan uji Duncan dengan taraf signifikansi $P < 0,05$. Hasil penelitian menunjukkan pemberian IWBNM dalam air minum dengan konsentrasi 2% (P4) berpengaruh signifikan meningkatkan struktur histologis otot pektoralis meliputi, luas area fasikulus dan myofiber dibandingkan dengan kontrol. Pemberian IWBNM 2% (P4) meningkatkan performa pertumbuhan ayam broiler meliputi, berat otot pektoralis, luas area otot pektoralis, berat badan, morfometri tubuh, dan efisiensi pakan. Pemberian IWBNM dengan konsentrasi 2% (P4) dalam air minum dapat digunakan sebagai suplemen pertumbuhan ayam broiler.

Kata Kunci : Ayam Broiler, Infused water buah naga merah, Otot Pektoralis, performa pertumbuhan.

Histological Structure of Pectoralis Muscle and Growth Performance Chicken Broiler [*Gallus gallus gallus* (Linnaeus, 1758)] After Supplementation of Red Dragon Fruit (*Hylocereus polyrhizus* (F.A.C. Weber) Britton & Rose) Infused Water

Adi Susanto

19/447322/PBI/01601

ABSTRACT

Broiler chickens have a short harvest period, broiler chicken meat is widely consumed by Indonesian people, because the price is cheaper and has a softer meat texture. The growth of broiler chickens can be triggered by Antibiotics Growth Promoters (AGP), but the use of AGP has been banned in many countries. Red dragon fruit has secondary metabolite compounds, functions as antioxidants, and natural antibiotics, which function as growth triggers. This study aims to determine the effect of administrated infused water red dragon fruit (IWBNM) in drinking water on the histological structure of the pectoralis muscle and the growth performance of broiler chickens. This study used 300 DOC male broilers strain Loughmann MB 202 which were reared until the age of 21 days. This study used a completely randomized design, with 5 groups and 3 replications, each replicate group contained 20 DOCs. Groups P0 (Treatment 0 = plain water), P1 (IWBNM 0.25%), P2 (IWBNM 0.50%), P3 (IWBNM 1%), and P4 (IWBNM 2%). The parameters observed were the histological structure of the pectoralis muscle and the growth performance of broiler chickens. Analysis of research data using test one way ANOVA and continued with Duncan's test with a significance level of $P < 0.05$. The results showed that the administration of IWBNM in drinking water with a concentration of 2% (P4) had a significant effect on increasing the histological structure of the pectoralis muscle including fasciculus and myofibril area compared to the control. Administration IWBNM 2% (P4) improved the growth performance of broiler chickens including pectoralis muscle weight, pectoralis muscle area, body weight, body morphometry, and feed efficiency. IWBNM with a concentration of 2% (P4) in drinking water can be used as a growth supplement for broilers.

Keyword : Broiler Chickhens, Infused Water Red Dragon Fruit , Pectoralis Muscle, Growth Performance, Pectoralis Muscle.