

STRUKTUR HISTOLOGI DAN PERTUMBUHAN OTOT PEKTORALIS AYAM PETELUR [*Gallus gallus gallus* (Linnaeus, 1758)] BETINA SETELAH PEMBERIAN *INFUSED WATER* BUAH KURMA (*Phoenix dactilifera* L.)

ABSTRAK

Buah kurma mengandung berbagai macam senyawa seperti karbohidrat, vitamin, mineral asam lemak dan antioksidan. Penelitian ini bertujuan untuk mengetahui dan mempelajari morfologi otot pektoralis ayam petelur [*Gallus gallus gallus* (linnaeus, 1758)] betina setelah pemberian *infused water* buah kurma (*Phoenix dactilifera* l.) Penelitian menggunakan ayam petelur strain Lohmann Brown sebanyak 200 ekor yang masing-masing dibagi ke dalam 5 kelompok yaitu kelompok kontrol yang diberi air minum biasa (K0), kelompok AGP (*Antibiotic Growth Promoter*) dosis 50 mg/kg pakan (55 ppm), pemberian dosis 5 mg buah kurma/ml air minum (P1), pemberian dosis 10 mg buah kurma/ml air minum (P2), dan pemberian dosis 20 mg buah kurma/ml air minum (P3). Pengulangan dilakukan sebanyak 3 kali. Ayam dipelihara selama 4 minggu di dalam *box container*. *Infused water* buah kurma diberikan pada pagi hari dan pada sore hari diganti air biasa. Pengukuran berat badan dilakukan setiap 3 hari sekali. Setelah ayam berumur 4 minggu kemudian di euthanasi dan otot pektoralis ayam diambil lalu diukur luas otot kemudian dibuat preparat melintang untuk menghitung luas fasikulus dan luas miofibril. Hasil yang didapatkan dari penelitian ini yaitu berat badan ayam pada minggu ke-4 kelompok perlakuan P2 berbeda secara signifikan lebih tinggi dibandingkan kelompok kontrol. Berat otot, luas otot, luas fasikulus dan luas miofibril pada kelompok perlakuan P2 berbeda secara signifikan lebih tinggi dibandingkan dengan kelompok perlakuan lainnya. Kesimpulan yang didapat yaitu *infused water* buah kurma dosis 10 mg/ml air minum dapat digunakan untuk meningkatkan pertumbuhan ayam petelur dan meningkatkan performa otot pektoralis ayam petelur

Kata kunci: *pertumbuhan, infused water buah kurma, morfologi otot, ayam petelur*

HISTOLOGICAL STRUCTURE AND MUSCLE PECTORALIS GROWTH of FEMALE LAYING HEN [*Gallus gallus gallus* (Linnaeus, 1758)] AFTER GIVING DATES PALM (*Phoenix dactilifera* L.) INFUSED WATER

ABSTRACT

Dates palm contain variety of compounds such as carbohydrates, vitamins, fatty acid, minerals and antioxidants. This study aimed to learn pectoralis muscle morphology of laying hens [*Gallus gallus gallus* (Linnaeus, 1758)] after giving infusion of date palm fruit (*Phoenix dactilifera* L.). The research used 200 laying hens from Lohmann Brown strain and divided into 5 groups. The first group is control group that were given drinking water (K0), AGP (Antibiotic Growth Promoter) dose of 50 mg / kg of feed (55 ppm), dose of 5 mg of dates / ml in drinking water (P1), dose of 10 mg of dates / ml in drinking water (P2), and a dose of 20 mg of dates / ml in drinking water (P3). The research used triplication. Laying hens maintained along 4 weeks in a container box. Infused water were given in the morning and in the afternoon replaced with plain water. The body weight was measured every 3 days. After the 4-week-old chicken was euthanated. The muscle area of pectoralis muscle was measured and then made a transverse preparation to calculate the fasciculus area and myofibril area. The results obtained from this study were the chicken body weight at the 4th week of the P2 treatment group was significantly higher than the control group. Muscle weight, muscle area, fasciculus area and myofibril area in P2 treatment group were significantly higher compared to other treatment groups. The conclusion from this study is the date palm infusion of 10 mg / ml in drinking water can be used to increase the growth of laying hens and improve the performance of pectoralis muscle in laying hens

Keywords : *growth, date palm infusion, muscle morphology, laying hens*