

STRUKTUR HISTOLOGI OVARIUM AYAM PETELUR
[Gallus gallus gallus (Linnaeus, 1758)] SETELAH PEMBERIAN
INFUSED WATER BUAH KURMA (Phoenix dactylifera L.)

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INTISARI

Industri ayam ras petelur telah berkembang pesat akibat tingginya permintaan telur sebagai salah satu produk pangan hewani yang banyak dibutuhkan masyarakat. Produktivitas telur ayam sangat dipengaruhi oleh faktor nutrisi. Nutrisi pada pakan terutama protein, penting untuk perkembangan sistem reproduksi. Suplemen alami yang digunakan sebagai nutrisi mengandung banyak senyawa salah satunya antioksidan adalah kurma (*Phoenix dactylifera* L.). Penelitian ini bertujuan untuk mengetahui pengaruh *infused water* buah kurma terhadap struktur histologi ovarium pada ayam petelur. Penelitian ini menggunakan 200 ekor *Day Old Chick* (DOC) ayam petelur strain Lohmann Brown yang dipelihara sampai umur 54 hari. Penelitian ini menggunakan rancangan acak lengkap, yang terdiri dari 5 kelompok dan diulang sebanyak 3 kali meliputi air mineral (Kontrol Negatif); bacitracin (Kontrol Positif); 50mg buah kurma/ml (P1); 100mg buah kurma/ml (P2) dan 200mg buah kurma/ml (P3), perlakuan *infused water* buah kurma diberikan melalui air minum. Umur 54 hari, masing-masing kelompok ayam dibedah untuk pengambilan organ ovarium. Parameter yang diamati meliputi indeks organ ovarium, indeks organ viseral dan struktur histologi ovarium pada ayam petelur. Analisis data dilakukan dengan uji one way ANOVA kemudian dilanjutkan uji Duncan dengan signifikansi $P < 0,05$. Hasil penelitian yaitu pemberian *infused water* buah kurma berpengaruh terhadap struktur histologi ovarium dan pertumbuhan folikel ayam petelur, selain itu juga dapat meningkatkan performa pertumbuhan ayam petelur yang meliputi, berat badan, berat indeks ovarium dan indeks organ viseral. Pemberian *infused water* buah kurma dengan dosis 100 mg/ml dalam air minum merupakan dosis yang paling efektif terhadap struktur histologi dan pertumbuhan folikel ayam petelur.

Kata Kunci: Ayam Petelur, Infused Water Buah Kurma, Struktur Histologi Ovarium.

**HISTOLOGICAL STRUCTURE OF OVARY IN LAYER
[*Gallus gallus gallus* (Linnaeus, 1758)] AFTER TREATMENT OF
DATE PALM (*Phoenix dactylifera* L.) INFUSED WATER**

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ABSTRACT

The laying hens industry has grown rapidly due to the high demand for eggs as one of the animal food products that are needed by the community. Productivity of chicken eggs is strongly influenced by nutritional factors. Nutrition in feed, especially protein, is important for the development of the reproductive system. Natural supplements used as nutrients contain many compounds, one of which is antioxidants is date palm (*Phoenix dactylifera* L.). This research aims to determine the effect of date palm infused water on structure of histology ovarian in laying hens. This research used 200 Day Old Chick (DOC) laying hens of Lohmann Brown strain which were maintained until the age of 54 days. This research used a completely randomized design, consisting of 5 groups each group is triplicate with mineral water (Control Negative); Bacitracin (Positive Control); 50mg DP/ml (P1); 100mg DP/ml (P2) and 200mg DP/ml (P3), date palm infused water treatment is given through drinking water. At 54 days of age, each group of chickens is dissected to collect of ovarian organs. Parameters observed included the index of the ovary, index of the visceral and the structure of histology ovarian in laying hens. Data analysis with one way ANOVA test and continued by Duncan with significance $P < 0,05$. The results of this research are the dates palm infused water affect the ovarian histological structure and growth of laying hens follicles, but it also can improve the growth performance of laying hens which include, weight, index of ovarian organs and index of visceral organs. The administration of date palm infused water at a dose of 100 mg/ml in drinking water is the most effective dose for the histological structure and growth of laying hens follicles.

Keyword: *Laying Hens, Date Palm Infused Water, Structure of Histology Ovarian.*