

**AMINATUL LUSIANA 21230620080P:** Pengaruh Konsentrasi Perendaman Ekstrak Daun Ketapang (*Terminalia catappa*) pada Suhu Penyimpanan yang Berbeda terhadap Kualitas Telur Ayam Ras; **Ir. Rohmad, MMA. dan Nurina Rahmawati, S.Pt., M.P.**

### RINGKASAN

Penelitian bertujuan mengetahui pengaruh konsentrasi perendaman ekstrak daun ketapang (*Terminalia catappa*) pada suhu penyimpanan yang berbeda terhadap kualitas telur ayam ras, hasilnya diharapkan bermanfaat bagi mahasiswa, masyarakat, maupun pemangku kepentingan mengenai penelitian ini.

Penelitian dilaksanakan 1 hari pengambilan sampel telur, 2 hari pembuatan ekstrak, 3 hari pemberian perlakuan perendaman sampel dengan ekstrak daun ketapang, dan pengujian atau pengamatan selama 15 hari pada bulan Desember tahun 2023. Penelitian dilaksanakan di Laboratorium Peternakan Universitas Islam Kadiri Kediri. Sampel telur sebanyak 128 butir berasal dari jenis ayam *Multi Breeder* 402 berumur 44 minggu diperoleh dari peternakan ayam petelur beralamatkan di Dusun Mantren Desa Tengger Kidul Kecamatan Pagu Kabupaten Kediri. Metode penelitian dengan eksperimen menggunakan Rancangan Acak Lengkap (RAL) faktorial. Faktor yang digunakan pada penelitian ini konsentrasi ekstrak daun ketapang (F1) dan suhu penyimpanan (F2) tiap level dengan 4 ulangan.

Terdapat pengaruh perbedaan konsentrasi nyata ( $P \leq 0,05$ ) pemberian ekstrak daun ketapang pada hari ke-0 terhadap bobot telur  $73,46 \pm 0,76$ ,  $63,81 \pm 0,05$ ,  $64,02 \pm 3,41$ , warna kuning telur  $7,9 \pm 0,01$ , persentase bobot kuning dan putih  $0,53 \pm 0,01$  dan  $0,15 \pm 0,003$ . Hari ke-5 bobot telur  $70,74 \pm 0,93$ ,  $63,19 \pm 0,27$ ,  $64,27 \pm 0,55$ , warna kuning telur  $7,38 \pm 0,13$ ,  $7,50 \pm 0,00$ ,  $7,63 \pm 0,38$ . Hari ke-10 bobot telur  $78,08 \pm 0,91$ ,  $60,34 \pm 0,71$ ,  $65,43 \pm 1,75$ , Hari ke-15 bobot telur  $65,19 \pm 0,29$ ,  $64,65 \pm 1,92$ ,  $62,87 \pm 1,56$ , warna kuning telur  $7,88 \pm 0,13$ . Terdapat pengaruh nyata ( $P \leq 0,05$ ) perbedaan suhu penyimpanan pada hari ke-0 terhadap warna kuning telur  $15,45 \pm 0,26$ , indeks putih telur  $0,13 \pm 0,01$ , persentase bobot kuning dan putih  $0,42 \pm 0,07$  dan  $1,27 \pm 0,16$ . Hari ke-5 terhadap warna kuning telur  $15 \pm 0,31$ , *haugh unit*  $183,52 \pm 5,60$ , indeks kuning dan putih telur  $0,79 \pm 0,01$  dan  $0,13 \pm 0,01$ , persentase bobot kuning dan putih  $0,55 \pm 0,00$  dan  $1,20 \pm 0,03$ . Hari ke-10 terhadap warna kuning telur  $15,50 \pm 0,18$ , *haugh unit*  $185,70 \pm 3,75$ , indeks kuning dan putih telur  $0,81 \pm 0,02$  dan  $0,14 \pm 0,01$ , persentase bobot kuning dan putih  $0,60 \pm 0,04$  dan  $1,16 \pm 0,01$ . Hari ke-15 terhadap *haugh unit*  $171,60 \pm 8,29$ , indeks kuning dan putih telur  $0,82 \pm 0,03$  dan  $0,12 \pm 0,01$ , persentase bobot kuning  $0,58 \pm 0,02$ .

Berdasarkan uraian diatas dapat disimpulkan bahwa terdapat pengaruh nyata ( $P \leq 0,05$ ) pemberian ekstrak daun ketapang terhadap bobot telur dan warna kuning telur pada K1, K2, dan K3 hari ke-0 hingga hari ke-15. Terdapat pengaruh nyata ( $P \leq 0,05$ ) perbedaan suhu terhadap warna kuning telur, *haugh unit*, indeks kuning telur, indeks putih telur, persentase bobot kuning dan putih telur pada suhu *refrigator* pada penyimpanan hari ke-0 hingga hari ke-15.

Kata kunci: *bobot telur, warna kuning, haugh unit, indeks kuning dan putih telur, dan persentase bobot putih dan kuning telur.*

**AMINATUL LUSIANA 21230620080P:** *Effect of Soaking Concentration of Ketapang Leaf Extract (Terminalia catappa) at Different Storage Temperatures on the Quality of Purebred Chicken Eggs; Ir. Rohmad, MMA. and Nurina Rahmawati, S.Pt., M.P.*

### **SUMMARY**

*The research aims to determine the effect of soaking concentration of ketapang leaf extract (Terminalia catappa) at different storage temperatures on the quality of purebred chicken eggs. The results are expected to be useful for students, the community and stakeholders regarding this research.*

*The research was carried out in 1 day of taking egg samples, 2 days of making extracts, 3 days of soaking samples with ketapang leaf extract, and testing or observation for 15 days in December 2023. The research was carried out at the Animal Husbandry Laboratory of Kadiri Islamic University, Kediri. A sample of 128 eggs came from Multi Breeder 402 chickens aged 44 weeks, obtained from a laying hen farm located at Mantren Hamlet, Tengger Kidul Village, Pagu District, Kediri Regency. The experimental research method used a factorial Completely Randomized Design (CRD). The factors used in this research were concentration of ketapang leaf extract (F1) and storage temperature (F2) at each level with 4 replications.*

*There was a significant difference in concentration ( $P \leq 0.05$ ) of giving ketapang leaf extract on day 0 on egg weight  $73.46 \pm 0.76$ ,  $63.81 \pm 0.05$ ,  $64.02 \pm 3.41$ , yellow color eggs  $7.9 \pm 0.01$ , percentage of yolk and white weight  $0.53 \pm 0.01$  and  $0.15 \pm 0.003$ . 5th day egg weight  $70.74 \pm 0.93$ ,  $63.19 \pm 0.27$ ,  $64.27 \pm 0.55$ , egg yolk color  $7.38 \pm 0.13$ ,  $7.50 \pm 0.00$ ,  $7.63 \pm 0.38$ . Day 10 egg weight  $78.08 \pm 0.91$ ,  $60.34 \pm 0.71$ ,  $65.43 \pm 1.75$ , Day 15 egg weight  $65.19 \pm 0.29$ ,  $64.65 \pm 1.92$ ,  $62.87 \pm 1.56$ , egg yolk color  $7.88 \pm 0.13$ . There was a significant effect ( $P \leq 0.05$ ) of the difference in storage temperature on day 0 on egg yolk color  $15.45 \pm 0.26$ , egg white index  $0.13 \pm 0.01$ , weight percentage of yolk and white  $0.42 \pm 0.07$  and  $1.27 \pm 0.16$ . On the 5th day, egg yolk color was  $15 \pm 0.31$ , haugh unit  $183.52 \pm 5.60$ , egg yolk and white index  $0.79 \pm 0.01$  and  $0.13 \pm 0.01$ , percentage of yolk and white weight  $0.55 \pm 0.00$  and  $1.20 \pm 0.03$ . On the 10th day, egg yolk color was  $15.50 \pm 0.18$ , haugh unit  $185.70 \pm 3.75$ , yolk and egg white index  $0.81 \pm 0.02$  and  $0.14 \pm 0.01$ , yolk weight percentage and white  $0.60 \pm 0.04$  and  $1.16 \pm 0.01$ . On the 15th day, the haugh unit was  $171.60 \pm 8.29$ , the yolk and egg white index were  $0.82 \pm 0.03$  and  $0.12 \pm 0.01$ , the yolk weight percentage was  $0.58 \pm 0.02$ .*

*Based on the description above, it can be concluded that there is a real effect ( $P \leq 0.05$ ) of giving ketapang leaf extract on egg weight and egg yolk color on K1, K2 and K3 days 0 to 15. There was a significant effect ( $P \leq 0.05$ ) of temperature differences on egg yolk color, haugh units, egg yolk index, egg white index, weight percentage of yolk and egg white at refrigerator temperature on days 0 to 15 of storage.*

*Key words: egg weight, yolk color, haugh unit, egg yolk and white index, and egg white and yolk weight percentage.*