

PENGARUH PENAMBAHAN VITAMIN C DALAM BAHAN PENGENCER TRIS KUNING TELUR TERHADAP KUALITAS SEMEN CAIR AYAM MERAWANG

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan vitamin C dalam bahan pengencer tris kuning telur terhadap motilitas, viabilitas, dan abnormalitas *semen* cair ayam Merawang. Penelitian dilakukan di Laboratorium Fisiologi dan Reproduksi Ternak, Fakultas Peternakan, Universitas Gadjah Mada pada Desember 2021 sampai dengan April 2022. *Semen* segar dari 2 ekor ayam Merawang umur 54 minggu sebagai bahan penelitian ini. Ayam dipelihara di kandang individu dan diberi pakan konsentrat PAR-G sebanyak 100g/ekor/hari dengan air minum selalu tersedia. *Semen* ayam Merawang ditampung sebanyak 2 kali dalam seminggu menggunakan metode *massage*. *Semen* ayam Merawang diencerkan menggunakan bahan pengencer tris kuning telur dan diberi tambahan vitamin C. Perlakuan terdiri dari : (1) tris kuning telur tanpa vitamin C sebagai kontrol (C0), (2) tris kuning telur ditambah vitamin C 1 mg/ml (C1), (3) tris kuning telur ditambah vitamin C 2 mg/ml (C2), dan (4) tris kuning telur ditambah vitamin C 3 mg/ml (C3). Data yang diamati adalah motilitas (%), viabilitas (%), dan abnormalitas (%). Data yang diperoleh dianalisis dengan analisis variansi menggunakan Rancangan Acak Lengkap (RAL) pola searah. Hasil analisis menunjukkan bahwa penambahan vitamin C dalam bahan pengencer tris kuning telur tidak berpengaruh nyata ($P>0,05$) terhadap motilitas, viabilitas, dan abnormalitas *semen* cair ayam Merawang. Nilai motilitas perlakuan C0, C1, C2, dan C3 berturut-turut adalah 22.85 ± 7.55 , 19.37 ± 10.15 , 18.88 ± 9.27 , dan 17.77 ± 6.66 . Nilai viabilitas perlakuan C0, C1, C2, dan C3 berturut-turut adalah 67.65 ± 5.91 , 70.22 ± 5.99 , 65.49 ± 4.43 , dan 67.20 ± 4.51 . Nilai abnormalitas perlakuan C0, C1, C2, dan C3 berturut-turut adalah 3.68 ± 1.34 , 3.71 ± 1.45 , 3.29 ± 1.02 , dan 3.32 ± 1.09 . Berdasarkan hasil tersebut, dapat disimpulkan bahwa tidak ada pengaruh dari penambahan vitamin C terhadap motilitas, viabilitas, dan abnormalitas *semen* cair ayam Merawang.

Kata kunci: Kualitas *semen*, Tris kuning telur, Vitamin C, Ayam Merawang

EFFECT OF ADDITION OF VITAMIN C IN EGG YOLK TRIS DILUENT ON THE QUALITY OF LIQUID *SEMEN* OF MERAWANG COCK

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ABSTRACT

This research was aimed to determine the effect of the addition of vitamin C on egg yolk tris diluent to the motility, viability, and abnormality of the liquid semen of Merawang cock. The research was conducted at the Laboratory of Animal Physiology and Reproduction, Faculty of Animal Science, Gadjah Mada University from December 2021 to April 2022. The fresh *semen* from 2 Merawang cock 54 weeks of aged were used in this research. Merawang cock were kept in individual cages, and fed with PAR-G concentrate as much as 100g/head/day with ad libitum water. Merawang cock *semen* was collected twice a week using the *massage* method. Merawang cock *semen* was diluted using egg yolk tris as a diluent and added with vitamin C. The treatments consisted of : (1) egg yolk tris without vitamin C (C0), (2) egg yolk tris plus 1 mg/ml vitamin C (C1), (3) egg yolk tris plus 2 mg/ml vitamin C (C2), dan (4) egg yolk tris plus 3 mg/ml vitamin C (C3). The data observed were motility (%), viability (%) and abnormality (%). The obtained data were analyzed using One Way analysis of completely randomized design. The results showed that the addition of vitamin C in egg yolk tris diluent had no significant effect ($P>0.05$) on the motility, viability, and abnormality of the liquid *semen* of Merawang cock. The motility value of C0, C1, C2, and C3 were 22.85 ± 7.55 , 19.37 ± 10.15 , 18.88 ± 9.27 , and 17.77 ± 6.66 respectively. The viability value of C0, C1, C2, and C3 were 67.65 ± 5.91 , 70.22 ± 5.99 , 65.49 ± 4.43 , and 67.20 ± 4.51 respectively. The abnormality value of C0, C1, C2, and C3 were 3.68 ± 1.34 , 3.71 ± 1.45 , 3.29 ± 1.02 , and 3.32 ± 1.09 respectively. It can be concluded that there is no effect of Vitamin C addition on the motility, viability, and abnormality of the liquid *semen* of Merawang cock.

Keywords: *Semen* quality, Egg yolk tris, Vitamin C, Merawang cock