



**PENGARUH PENGGUNAAN PENGECER SITRAT KUNING
TELUR DAN *PHOSPHATE BUFFER SALINE* TERHADAP
DAYA HIDUP SPERMATOZOA AYAM KAMPUNG
PADA PENYIMPANAN 4-5° C**

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INTISARI

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh pengencer sitrat kuning telur dan *Phosphate Buffer Saline* (PBS) terhadap daya hidup sel sperma ayam kampung pada penyimpanan 4-5° C. Dalam penelitian ini digunakan 5 ekor pejantan ayam kampung yang telah berumur 20-22 minggu. Sperma yang didapatkan kemudian dibagi menjadi dua bagian yang sama dan diencerkan dengan dua bahan pengencer. Parameter yang diamati adalah pH, motilitas, dan persentase sel sperma hidup. Data dianalisis dengan menggunakan Rancangan Acak Lengkap Pola Faktorial 2X2X4, yaitu dua perlakuan bahan pengencer, dua perlakuan penyimpanan, dan empat kali jam pengamatan, dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Berdasarkan hasil penelitian ternyata bahan pengencer, temperatur penyimpanan dan jam pengamatan mempunyai pengaruh nyata terhadap pH, motilitas, dan daya hidup sel sperma. Pengencer PBS lebih mampu mempertahankan pH, motilitas, dan daya hidup sel sperma ayam kampung daripada pengencer sitrat kuning telur. Dapat disimpulkan bahwa pengencer PBS mempunyai pengaruh yang lebih baik daripada pengencer sitrat kuning telur pada penyimpanan temperatur kamar dan 4-5° C sperma ayam kampung.

Kata kunci : Sel sperma , Sitrat kuning telur,
Phosphate Buffer Saline (PBS),
Temperatur 4-5°C, Ayam kampung



**THE EFFECT OF EGG YOLK CITRATE AND PHOSPHATE BUFFER
SALINE DILUENTS ON VIABILITY OF NATIVE
CHICKEN SPERM CELL STORED AT 4-5° C**

Abstract

This experiment was conducted to determine the effect of egg yolk citrate and *Phosphate Buffer Saline* (PBS) diluents on viability of native cockerel sperm cell stored at 4-5° C. Five heads of native cockerel about 20-22 weeks of age were used in this experiments. The sperma were collected from five heads of native cockerel, and devided into two parts and then diluted in two different kind of dilutions. The observed variable were pH, motillity, and live sperm cell percentage. Data were analyzed by the analyses of variance 2X2X4 factorial in completly randomized design, and the factors were two diluent, two stored temperature and four time observation treatments. The differences between the treatment were analyzed by *Duncan's New Multiple Range Test* (DMRT). The results showed that the diluents, time observation, and Stored temperature gave signifficantly effect on the pH, motillity, and live sperm cell percentage. PBS diluent had more abillity to keep the pH, motillity, and live sperm cell percentage better than egg yolk citrate. It was concluded that PBS diluent had a better effect than egg yolk citrate on stored native cockerel's sperma.

Key words : Sperma, Egg yolk citrate, *Phosphate Buffer Saline* (PBS), 4° C temperature, Native cockerel