

**KUALITAS SPERMA DAN DAYA HIDUP SEL SPERMA
KAMBING PERANAKAN ETAWAH DALAH BAHAN PENGECER
KUNING TELUR SITRAT DAN KUNING TELUR AIR KELAPA
YANG DISIHPAN PADA SUHU 5°C**

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INTISARI

Penelitian ini dilakukan untuk mengetahui kualitas sperma kambing Peranakan Etawah dan daya hidup sel sperina dalairi bahan pengencer kuning telar sitrat dan kuning telur air kelapa yang disimpan pada suhu sekitar 5°C. Sperma dari seekor kambing Peranakan Etawah ditampung dengan vagina buadari dengan frekuensi penampungan seminggu sekali selama 3 bulan. Sperma diuji karakteristik dan kualitasnya yang meliputi warna, bau, konsistensi, volume, pH, motilitas, persentase sel sperma yang hidup dan konsentrasi sel sperma. Kemudian diencerkan dengan kuning telur sitrat dan kuning telur air kelapa dengan perbandingan 1 banding 4 yang ditambah streptomycin 0,1 gram/100 ml pengencer sebagai antibiotik. Perbandingan sperma dengan bahan pengencer adalah 1 banding 9. Sperma yang telah diencerkan disimpan dan dievaluasi segera setelah diencerkan, 24 jam, 43 jam dan 72 jam setelah penyimpanan untuk mengetahui daya hidup sel sperma. Data karakteristik dan kualitas sperma yang diperoleh direrata dan dibandingkan dengan pustaka sedangkan data daya hidup sel sperma dianalisis dengan uji beda mean (t-test). Hasil penelitian menunjukkan bahwa rerata volume sperma $0,958 \pm 0,197$ ml, pH 5,91 sampai 6,91, motilitas $82,916 \pm 2,916\%$, konsentrasi sel sperma $4154,166 \pm 706,572$ juta/ml, dan persentase sel sperma yang hidup $95,363 \pm 3,813\%$. Hasil penelitian menunjukkan kualitas sperma dalam keadaan baik. Daya hidup sel sperma dalam pengencer kuning telur sitrat lebih baik dibanding dalam pengencer kuning telur air kelapa ($P < 0,05$).

(Kata Kunci : Kambing Peranakan Etawah, Kualitas Sperma, Daya Hidup Sel Sperma, Bahan Pengencer).

**THE SEMEN QUALITY AND THE VIABILITY OF SPERM
OF ETAWAH CROSSBRED GOAT IN DILUTION OF EGG
YOLK CITRATE AND EGG YOLK COCONUT WATER
AT 5°C STORAGE TEMPERATURE**

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ABSTRACT

The study was conducted to investigate the semen quality of Etawah crossbred goat and the effect of dilution of egg yolk citrate and egg yolk coconut water on the viability of sperm at 5°C storage temperature. The semen was collected from one male goat of Etawah crossbred by artificial vagina, once a week during 3 months. The semen character and semen quality was evaluated on the colour, consistence, volume, pH, motility, concentration and percentage of live sperm. The semen was diluted with egg yolk citrate and egg yolk coconut water with ratio of egg yolk and buffer was 1 to 4 added by streptomycin 0.1 g/100 cc as antibiotic. The ratio of semen and the diluent was 1 to 9. The semen was evaluated immediately after dilution and 24 hours, 48 hours and 72 hours after of storage. The data of semen character and semen quality was compared by reference data, and the viability of sperm was analysed by t-test. The results indicated that the semen volume per ejaculated was 0.958 ± 0.197 cc, pH was 5.91 to 6.91, sperm motility was $82.916 \pm 2.574\%$, concentration was 4154.166 ± 706.572 million/cc and percentage of live sperm was $95.363 \pm 3.813\%$, respectively. The viability of sperm of diluted of egg yolk citrate better than of egg yolk coconut water ($P < .05$).

(Key Words : Etawah Crossbred Goat, Quality of Semen , Viability of Sperm, Dilution).