

**PENGARUH PENAMBAHAN LEVEL KONSENTRASI SUKROSA
DALAM MEDIA PENGECER SUSU SKIM TERHADAP
KUALITAS SPERMA KAMBING PERANAKAN
ETTAWA SETELAH PENYIMPANAN
PADA SUHU 5°C**

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INTISARI

Penelitian ini bertujuan untuk mengetahui kualitas sperma kambing Peranakan Ettawa (PE) yang diencerkan dengan susu skim dan penambahan sukrosa dengan level konsentrasi yang berbeda kemudian di simpan pada suhu 5°C selama 3 jam. Bahan pengencer yang digunakan kombinasi susu skim dengan level konsentrasi sukrosa 0% sebagai kontrol, 1% (S1), 2% (S2), 3% (S3), 4% (S4). Parameter yang diamati dalam penelitian ini adalah kualitas sperma kambing PE secara makroskopis meliputi volume, warna, konsistensi, derajat keasaman (pH), dan secara mikroskopis meliputi motilitas, viabilitas dan abnormalitas *spermatozoa* setelah penyimpanan pada suhu 5°C. Sperma yang telah diencerkan dan disimpan dalam lemari es dengan temperatur $\pm 5^\circ\text{C}$ selama 3 jam sukrosa 0% memiliki motilitas $64,4 \pm 2,96\%$, viabilitas $68,87 \pm 3,38$, dan abnormalitas $0,5 \pm 0,00$, sukrosa 1% memiliki hasil motilitas $70,6 \pm 6,50$, viabilitas $71,95 \pm 4,09$, dan abnormalitas $0,6 \pm 0,22$, sukrosa 2% memiliki hasil motilitas $63,8 \pm 14,51$, viabilitas $73,86 \pm 3,32$, dan abnormalitas $0,5 \pm 0,00$, sukrosa 3% memiliki hasil motilitas $67,2 \pm 10,37$, viabilitas $71,75 \pm 4,59$, dan abnormalitas $0,8 \pm 0,27$, sukrosa 4% memiliki hasil motilitas $66 \pm 6,28$, viabilitas $68,15 \pm 1,96$, dan abnormalitas $0,5 \pm 0,00$. Berdasarkan penelitian yang dilakukan dapat disimpulkan bahwa pengencer susu skim dan penambahan sukrosa dapat digunakan untuk pengenceran sperma.

Kata Kunci: Sperma, Kambing PE, Pengencer Susu Skim, Sukrosa, Penyimpanan 5°C, Kualitas Sperma

**EFFECT OF ADDITION LEVEL CONCENTRATION OF SUCROSE INTO
DILUENT SKIM MILK MEDIUM ON ETTAWA CROSS BRED
GOAT SPERM QUALITY AFTER STORAGE
AT TEMPERATURE 5°C**

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ABSTRACT

This research aimed to determine the effect of addition level concentration of sucrose into diluent skim milk medium on ettawa cross bred goat sperm quality after storage at temperature 5°C. The used various skim milk combinations with addition of sucrose concentration level of 0% as control, 1% (S1), 2% (S2), 3% (S3), 4% (S4) were used as diluent. The quality of the goat sperm included macroscopic (volume, color, consistency, acidity); and microscopic (motility, viability, and abnormalities) were examined after stored at 5°C. Sperm that had been diluted and stored in a refrigerator at temperature 5°C for 3 hours, showed 64.4±2.96%, 70.6±6.50%, 63.8±14.51%, 67.2±10.37%, 66±6.28% of motility for 0%, 1%, 2%, 3%, 4% concentration of sucrose respectively. The viability were 68.87±3.38%, 71.95±4.09%, 73.86±3.32%, 71.75±4.59%, 68.15±1.96% for 0%, 1%, 2%, 3%, 4% concentration of sucrose respectively. The abnormalitas showed the significant different between 1% (0.6 ± 0,22%) and 0% (0.5±0,00%), 2% (0.5±0,00%), 3% (0.8±0,27%), 4% (0.5±0,00%). Based on this research can be concluded that the dilution of skim milk and sucrose can be used for sperm dilution.

Keywords: Sperm, Ettawa Cros Bred, Skim Diluents, Sucrose, Stored at 5°C, Sperm Quality