

PENGARUH BANGSA SAPI DAN SIMULASI LAMA PENYIMPANAN SETELAH THAWING TERHADAP MOTILITAS DAN PERSENTASE HIDUP SPERMATOZOA DI BALAI INSEMINASI BUATAN LEMBANG

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh bangsa sapi dan simulasi lama penyimpanan setelah *thawing* terhadap motilitas dan persentase hidup spermatozoa di Balai Inseminasi Buatan Lembang. Materi yang digunakan berupa sperma beku dari sapi Brahman, FH, Simmental dan Limousin. Sperma beku diambil berasal dari empat individu masing-masing bangsa. Replikasi dilakukan sebanyak enam kali. Pengambilan sperma beku dilakukan 24 jam setelah pembekuan. *Thawing* dilakukan pada suhu 37 °C. Pengamatan dilakukan sebanyak tiga kali pada simulasi lama penyimpanan yang berbeda yaitu 0 jam, 4 Jam, dan 7 Jam. Data dianalisis dengan menggunakan analisis variansi dengan pola faktorial. Hasil penelitian menunjukkan bahwa simulasi lama penyimpanan setelah *thawing* memberikan perbedaan yang sangat nyata pada persentase hidup dan motilitas spermatozoa ($P < 0,01$), sedangkan pengaruh bangsa tidak memberikan perbedaan yang nyata. Sehingga dapat disimpulkan bahwa simulasi lama penyimpanan yang berbeda setelah *thawing* memberikan pengaruh terhadap motilitas dan persentase hidup spermatozoa. Semakin lama penyimpanan pada suhu 37 °C maka persentase hidup dan motilitas spermatozoa semakin merurun. Besarnya nilai rata-rata motilitas pada penyimpanan 0 jam, 4 jam, dan 7 jam masing-masing adalah 3,000; 2,668, dan 1,813. Sedangkan untuk persentase hidup pada penyimpanan 0 jam, 4 jam, dan 7 jam masing-masing adalah 49,53%, 36,72%, dan 25,05%.

Kata Kunci : Bangsa sapi, *Thawing*, motilitas, persentase hidup spermatozoa.

**THE EFFECT OF CATTLE BREED AND SIMULATION OF PRESERVATION
PERIOD AFTER THAWING ON MOTILITY AND VIABILITY OF
SPERMATOZOA IN BALAI INSEMINASI BUATAN LEMBANG**

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ABSTRACT

The study was conducted to evaluate the effect of cattle breed and simulation of preservation period after *thawing* on motility and viability of spermatozoa in Balai Inseminasi Buatan Lembang. The material used in this research is frozen semen of several cattle breeds such as Brahman, FH, Simmentai and Limousin. The semen was obtained from four individuals of each breed. Replicating occurred for the six time. The frozen semen was obtained (from each breed) after 24 hours freezing whether *thawing* is carried out on temperature 37°C. It was monitored three times in different preservation periods: 0 hour, 4 hours, and 7 hours. The collected data were analysed using analysis of variance with factorial model. The result of the research showed that simulation of preservation period after *thawing* indicated obvious difference on viability and motility of spermatozoa ($p < 0,01$) but the breed effect was not significant, therefore, it can be concluded that different period of preservation after *thawing* highly significantly effects viability and motility of spermatozoa. In a longer preservation period (after *thawing*), the motility and viability of spermatozoa are decreased more rapidly. The average level of motility of each 0 hour, 4 hours, and 7 hours preservation were 3,00; 2,668; and 1,813, whether the viability of each 0 hours, 4 hours, and 7 hours preservation are 49,53%, 36,72%, and 25,05%.

Key Words : Cattle Breed, *thawing*, motility, Viability of spermatozoa.