

## PENGARUH MEDIA DAN LAMA *THAWING* TERHADAP KUALITAS SPERMA BEKU SAPI SIMMENTAL DI BALAI PENGEMBANGAN BIBIT, PAKAN TERNAK, DAN DIAGNOSTIK KEHEWANAN

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### INTISARI

Tujuan penelitian ini yaitu mengetahui pengaruh penggunaan media dan lama *thawing* yang terbaik terhadap kualitas sperma beku Sapi Simmental serta mengetahui ada tidaknya interaksi antara media dan lama *thawing* terhadap kualitas sperma beku sapi Simmental. Penelitian dilaksanakan di Laboratorium BPBPTDK dengan pengambilan sampel acak pada 36 *straw* sperma beku Sapi Simmental. *Straw* sperma beku *dithawing* menggunakan gelas kaca dengan air kran (25°C) dan air hangat (37°C) selama 15 detik, 30 detik, dan 45 detik. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) pola faktorial 3x2 dengan faktor 1 yaitu lama *thawing* (15, 30, dan 45 detik) dan faktor 2 yaitu media *thawing* (air hangat dan air kran) dengan enam kali ulangan. Variabel yang diteliti yaitu motilitas, viabilitas, dan abnormalitas spermatozoa. Hasil penelitian menunjukkan terdapat interaksi antara media dan lama *thawing* terhadap motilitas dan viabilitas *spermatozoa*. Interaksi yang terbaik yaitu pada *thawing* dengan air hangat 37°C selama 15 detik menghasilkan motilitas 46,67 dan viabilitas 75,34±3,71. Media *thawing* memberikan pengaruh ( $P \leq 0,05$ ) terhadap motilitas dan viabilitas *spermatozoa*. *Thawing* dengan menggunakan air hangat menghasilkan motilitas sebesar 43,44 ± 5,46 dan viabilitas sebesar 69,00 ± 8,67 sedangkan *thawing* dengan air kran menghasilkan motilitas sebesar 32,28 ± 8,29 dan viabilitas sebesar 60,54 ± 8,34. Lama *thawing* tidak memberikan pengaruh terhadap motilitas, viabilitas, dan abnormalitas. Disimpulkan bahwa terdapat interaksi antara media dan lama *thawing* terhadap kualitas sperma, media *thawing* yang paling baik digunakan yaitu air hangat (37°C), dan penggunaan lama *thawing* dengan waktu 15 detik, 30 detik, dan 45 detik diperoleh kualitas sperma beku yang sama.

(Kata Kunci: Simmental, kualitas sperma, lama *thawing*, media *thawing*)

**THE EFFECT OF MEDIA AND DURATION OF THAWING ON THE  
QUALITY OF FROZEN SPERM OF SIMMENTAL AT BALAI  
PENGEMBANGAN BIBIT, PAKAN TERNAK,  
DAN DIAGNOSTIK KEHEWANAN**

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**ABSTRACT**

The purpose of this research was to find out the effect of the using of the media and duration of thawing to the quality of frozen sperm of Simmental and to find out its interaction between as well as between media of thawing and quality of sperm. This research was done in BPBPTDK laboratorium by taking random samples of 36 straws of frozen sperm of Simmental. Straws of frozen sperm were thawed at warm water (37°C) and cold water (25°C) at glass for 15 second, 30 second, and 45 second. The design of experiment that had been used in this research was completely randomized 3x2 factorial design with the duration of thawing (15, 30, and 45 second) as the first factor and the media of thawing (warm water and cold water) as the second factor and six times repetition. The examined variable were the motility, viability, and abnormality of spermatozoa. The result of this experiment showed that there was interaction between duration of thawing and motility and viability of spermatozoa as well as between media of thawing and motility and viability of spermatozoa. The best interaction occurred when thawing used warm water (37°C) for 15 second that yielded motility in the amount of 46,67 and viability in the amount of 75,34±3,71. Media of thawing gave effect ( $P \leq 0,05$ ) to motility and viability of spermatozoa. Thawing using warm water yielded motility in the amount of 43,44 ± 5,46% and viability in the amount of 69,00 ± 8,67%. The duration of thawing did not affect to motility, viability, and abnormality of spermatozoa. It could be concluded that there was no interaction between duration of thawing and quality of sperm as well as between media of thawing and quality of sperm, the best medium of thawing was warm water (37°C), and the duration of thawing those were 15 second, 30 second, and 45 second, yielded the same quality of sperm.

(Key words : Simmental, quality of sperm, duration of thawing, media of thawing)