PENGARUH METODE *THAWING* TERHADAP KUALITAS SEMEN BEKU SAPI PERANAKAN ONGOLE (PO)

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Tujuan dari penelitian ini adalah mengetahui pengaruh metode *thawing* terhadap kualitas spermatozoa post thawing. Materi yang digunakan dalam penelitian ini adalah 50 straw semen beku sapi Peranakan Ongole. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola faktorial dengan ulangan 3 kali. Faktor perlakuan yang dilakukan terdiri dari 2 faktor yaitu suhu thawing S1 (5^{o}C), S2 (25^{o}C) dan S3 (37^{o}C) lama thawing T1 (1 menit), T2 (5 menit), T3 (10 menit), T4 (15 menit) dan T5 (20 menit). Variabel yang diamati yaitu motilitas spermatozoa, viablitas spermatozoa dan abnormalitas sekunder spermatozoa. Data yang diperoleh dianalisis dengan menggunakan *analysis of varians* (ANOVA), yang selanjutnya dilakukan uji beda DMRT. Hasil rata-rata motilitas spermatozoa dari perlakuan S1 (5^{o}C), S2 (25^{o}C) dan S3 (37^{o}C) secara berurutan adalah 56,53%, 59,13% dan 55,33%, perlakuan T1 (1 menit), T2 (5 menit), T3 (10 menit), T4 (15 menit) dan T5 (20 menit) secara berurutan adalah 55,66%, 58,44%, 58,33%, 57,66% dan 54,88%. Hasil analisis data suhu thawing dan lama thawing tidak berpengaruh nyata terhadap motilitas spermatozoa, viabilitas spermatozoa dan abnormalitas sekunder spermatozoa. Disimpulkan bahwa thawing menggunakan perlakuan S1 (5^{o}C), S2 (25^{o}C) dan S3 (37^{o}C) bisa digunakan sampai dengan 20 menit motilitas 54,88 %, viabilitas 47,01 % dan abnormalitas sekunder 14,17 % masih layak untuk pelaksanaan IB. Saran bagi petugas inseminator bisa menggunakan suhu thawing 5^{o}C, 25^{o}C dan 37^{o}C sampai dengan lama thawing 20 menit.

Kata kunci: lama thawing, suhu thawing, semen beku, kualitas semen, sapi Peranakan Ongole

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THE EFFECT OF THAWING METHOD ON THE FROZEN SEMEN QUALITY OF ONGGOLE CROSSBREED BULL

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ABSTRACT*)

The aim of this research is to determine the effect of the thawing method towards the quality of post thawing spermatozoa. The material used in this research were 50 straws of frozen semen from Ongole Crossbred Bulls. This research used factorial completely randomized design with was repeated 3 times. The treatments consisted of 2 factors, namely thawing temperatures of S1 (5^oC), S2 (25^oC) and S3 (37^oC) and thawing durations of T1 (1minute), T2 (5 minutes), T3 (10 minutes), T4 (15 minutes) and T5 (20 minutes). The variables observed were motility of spermatozoa, viability of spermatozoa and secondary abnormalities of spermatozoa. The data obtained were analyzed using Analysis of Variance (ANOVA), which was then carried out by the DMRT difference test. The mean spermatozoa motility results from treatments of S1 ($5\ ^oC$), S2 ($25\ ^oC$) and S3 ($37\ ^oC$) respectively were 56,53%, 59,13% and 55,33% and from treatments of T1 (1 minute), T2 (5 minutes), T3 (10 minutes), T4 (15 minutes) and T5 (20 minutes) respectively were 55,66%, 58,44%, 58,33%, 57,66% and 54,88%. The results of data analysis of thawing temperatures and thawing durations did not have significant on motility of spermatozoa, viability of spermatozoa and secondary abnormalities of spermatozoa. concluded that thawing using treatments of S1 ($5\ ^oC$), S2 ($25\ ^oC$) and S3 ($37\ ^oC$) can be used for up to 20 minutes with 54.88% motility of spermatozoa, 47.01% viability of spermatozoa and 14,17% secondary abnormalities of spermatozoa are still feasible for the implementation of Artificial Insemination.

Keywords : thawing, duration, temperature, frozen semen, semen quality, Ongole Crossbred Bulls.

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