

**PENGARUH BAHAN PENDINGIN DALAM TERMOS LAPANGAN
TERHADAP MOTILITAS SPERMATOZOA SEMEN BEKU
SAPI LIMOUSIN**

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INTISARI*

Penelitian ini bertujuan untuk mengetahui pengaruh rasio bahan pendingin (es dan garam dapur) dan lama penyimpanan terhadap motilitas semen beku sapi Limousin selama *thawing*. Materi yang digunakan dalam penelitian ini adalah 90 *straw* semen beku sapi Limousin. Penelitian ini menggunakan rancangan percobaan Rancangan Acak Lengkap (RAL) pola searah dan diulang sebanyak 3 kali (*straw*). Faktor perlakuan yang dilakukan terdiri dari 5 taraf formulasi campuran es dan garam dapur, yaitu sebanyak 250 g es, P₀ (0% garam), P₁ (5% garam), P₂ (10% garam), P₃ (15% garam), dan P₄ (20% garam). Variabel yang diamati yaitu suhu simpan dan motilitas spermatozoa. Data yang diperoleh dianalisis dengan menggunakan *analysis of varians* (ANOVA), selanjutnya dilakukan uji lanjut DMRT. Hasil rata-rata motilitas spermatozoa dari perlakuan P₀ (0% garam), P₁ (5% garam), P₂ (10% garam), P₃ (15% garam), dan P₄ (20% garam) selama 3 jam penyimpanan secara berurutan adalah 61,6%, 63,8%, 63,8%, 68,3%, dan 61,1%. Disimpulkan bahwa penggunaan garam dapur sebesar 15% adalah batas penggunaan garam dapur yang cocok sebagai bahan pendingin serta memberikan persentase motilitas tertinggi sampai penyimpanan 3 jam dengan nilai rata-rata sebesar 68,3%.

Kata kunci: es, garam dapur, semen beku, motilitas, sapi Limousin

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**THE EFFECT OF COOLING MATERIAL IN FIELD TERMOS ON
SPERMATOZOON MOTILITY OF LIMOUSIN BULL
FROZEN SEMEN**

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ABSTRACT*

This study aims to determine the effect of the ratio of coolant (ice and salt) and storage time on the motility of Limousin bull frozen semen during thawing. The material used in this study was 90 Limousin bull frozen semen straws. This study used a completely randomized experimental design (CRD) with a unidirectional and repeated 3 times (straw) pattern. The treatment factors consisted of 5 levels formulation of ice and salt, namely 250 g of ice, P0 (0% salt), P1 (5% salt), P2 (10% salt), P3 (15% salt), and P4 (20% salt). The variables observed were storage temperature and motility of spermatozoon. The data obtained were analyzed using analysis of variance (ANOVA), then further DMRT test was carried out. The results of the mean spermatozoon motility from treatment P0 (0% salt), P1 (5% salt), P2 (10% salt), P3 (15% salt), and P4 (20% salt) for 3 hours of storage were 61.6%, 63.8%, 63.8%, 68.3%, and 61.1%, respectively. It is concluded that the use of table salt of 15% is the limit for the use of table salt which is suitable as a cooling agent and provides the highest percentage of motility up to 3 hours of storage with an average value of 68.3%.

Keywords : ice, table salt, frozen semen, motility, Limousin bull

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