

**PENURUNAN MOTILITAS SPERMATOZOA SETELAH PROSES
PEMBEKUAN SPERMA DARI BERBAGAI BANGSA SAPI
DI BALAI INSEMINASI BUATAN SINGOSARI**

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INTISARI

Penelitian ini dilakukan untuk mengetahui pengaruh perbedaan bangsa sapi terhadap penurunan motilitas spermatozoa selama proses pembekuan di BIB Singosari, Malang pada bulan Februari sampai April 2000. Pengamatan motilitas dilakukan terhadap 4 bangsa sapi yaitu : Limousin, Friesian Holstein (FH), Simmental dan Brahman. Masing-masing diambil lima ekor sapi. Pengamatan dibagi dalam tiga tahap, tahap I adalah pengamatan yang dilakukan pada semen segar, tahap II pengamatan terhadap motilitas semen setelah pengenceran (*Before Freezing* = BF) dan tahap III pengamatan terhadap motilitas semen setelah pembekuan 48 jam (*Post Thawing Motility* = PTM). Data yang diperoleh dianalisa dengan CRD pola Searah untuk motilitas setelah pembekuan dan dianalisa menggunakan CRD pola Faktorial 2 x 4 untuk penurunan motilitas semen pada proses pembekuan. Motilitas spermatozoa setelah pembekuan (*Post Thawing Motility* = PTM) yaitu untuk bangsa sapi Limousin rata-rata $39,86 \pm 0,78$ bangsa sapi FH rata-rata $40,71 \pm 2,58$ bangsa sapi Simmental rata-rata $37,28 \pm 2,22$ bangsa sapi Brahman rata-rata $39,43 \pm 1,17$ hasil analisa menunjukkan bahwa tidak terdapat perbedaan motilitas pada masing-masing bangsa. Demikian juga penurunan motilitas semen pada proses pembekuan bangsa sapi yang berbeda tidak berpengaruh nyata, tetapi pada proses pembekuan yaitu dari segar ke *Before Freezing* berbeda nyata ($p < 0,05$) dengan dari *Before Freezing* ke *Post Thawing Motility*.

(Kata Kunci : Motilitas, Spermatozoa, Pembekuan sperma)

**THE DECREASING OF SPERM MOTILITY FROM DIFFERENT
BREEDS OF CATTLE AFTER FREEZING PROCESS AT
SINGOSARI ARTIFICIAL INSEMINATION CENTER**

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ABSTRACT

This experiment was conducted to investigate the effect of breed differences of cattle on sperm motility after freezing process at Singosari Artificial Insemination Center, Malang, East Java. The study has been done during two months (February until April 2000). The research on sperm motility was done using 4 breeds of cattle: Limousin, Friesian Holstein (FH), Simmental and Brahman. Four breeds of cattle (5 heads each) were used in this experiment. Sperm motility was examined by microscope into three steps; fresh semen, before freezing (after diluted) and Post Freezing motility (48 hour after freezing. Data were analyzed using CRD One Way ANOVA for motility after freezing and analyzed by CRD factorial 2 x 4 for the decreasing of semen motility in freezing process. The average of sperm motility after freezing (Post Thawing Motility = PTM) for Limousin, FH, Simmental, and Brahman were 39.86 ± 0.78 , 40.71 ± 2.58 , 37.28 ± 2.22 and 39.43 ± 1.17 , respectively. There were no breed differences on those figure. The same result has been found in the decreasing of the sperm motility in freezing process, but there was significantly ($p < 0.05$) different between breeds on the decreasing of the sperm motility from fresh semen to Before Freezing with from Before Freezing to Post Thawing Motility.

(Key Word : Motility, Sperm, Semen Freezing)