

**PENGARUH SUPLEMENTASI VIRGIN COCONUT OIL DAN VIRGIN  
OLIVE OIL PADA MEDIUM PENCUCIAN SPERMA SETELAH  
THAWING TERHADAP KUALITAS SPERMATOZOA SAPI  
SIMMENTAL**

**Estialsa Puspa Giwang  
16/394456/PT/07129**

**INTISARI**

Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi *Virgin Coconut Oil* (VCO) dan *Virgin Olive Oil* (VOO) pada medium pencucian sperma setelah *thawing* terhadap kualitas *spermatozoa* sapi Simmental. Penelitian dilakukan di Laboratorium Fisiologi dan Reproduksi Ternak Fakultas Peternakan Universitas Gadjah Mada. Materi yang digunakan dalam penelitian ini adalah 35 *straw* sperma beku sapi Simmental berumur 9 sampai 11. Data yang akan diamati berupa motilitas, viabilitas, abnormalitas, keutuhan tudung akrosom dan integritas membran *spermatozoa*. Sperma beku di-*thawing* pada suhu 37°C selama 30 detik dan dicuci dengan metode *direct swim up* dengan medium *skim milk base extender* (SBE) dan ditambah suplementasi VCO dan VOO. Pengujian kualitas *spermatozoa* setelah *thawing* terdiri dari 7 perlakuan yang berbeda yaitu SBE (kontrol), SBE+VCO 0,5%, SBE+VCO 1%, SBE+VCO 2%, SBE+VOO 0,5%, SBE+VOO 1% dan SBE+VOO 2%. Data yang diperoleh kemudian dianalisis dengan menggunakan uji Kruskal-Wallis. Hasil analisis data menunjukkan bahwa terdapat perbedaan yang signifikan pada motilitas ( $P < 0,05$ ). Motilitas tertinggi pada perlakuan SBE+VCO 1% sebesar  $32,14 \pm 3,93\%$ . Penambahan suplementasi VCO dan VOO dalam medium *direct swim up* sperma setelah *thawing* tidak memberikan pengaruh yang signifikan atau tidak berbeda nyata terhadap viabilitas, abnormalitas, keutuhan tudung akrosom dan integritas membran *spermatozoa* ( $P > 0,05$ ). Kesimpulan dari penelitian ini bahwa penambahan suplementasi VCO dalam medium *direct swim up* memiliki pengaruh paling baik terhadap motilitas *spermatozoa*.

Kata kunci: *Virgin Coconut Oil*, *Virgin Olive Oil*, *Post-Thawing*, *Direct swim up*, Kualitas *Spermatozoa*.

**THE EFFECT OF VIRGIN COCONUT OIL AND VIRGIN OLIVE OIL  
SUPPLEMENTATION ON THE SPERM WASHING MEDIUM AFTER  
THAWING ON THE QUALITY OF SIMMENTAL SPERMATOZOA**

**Estialsa Puspa Giwang  
16/394456/PT/07129**

**ABSTRACT**

The research aimed to know the effect of supplementation of Virgin Coconut Oil (VCO) and Virgin Olive Oil (VOO) on sperm washing medium after thawing on the quality of Simmental bull *spermatozoa*. The research was conducted at the Laboratory of Animal Physiology and Reproduction, Faculty of Animal Science, University of Gadjah Mada. The materials used in this study were 35 Simmental frozen sperm straws aged 9 to 11 years. The observed data were motility, viability, abnormality, acrosomal integrity and *spermatozoa* membran integrity. The frozen sperm was thawed at 37 ° C for 30 seconds and washed by the *direct swim up* method with the skim milk base extender (SBE) medium and added with VCO and VOO supplementation. The Testing of *spermatozoa* quality after thawing was 7 difference treatments, that were SBE (control), SBE + VCO 0.5%, SBE + VCO 1%, SBE + VCO 2%, SBE + VOO 0.5%, SBE + VOO 1% and SBE + VOO 2%. The data data analyzed by using the Kruskal-Wallis Test. The results of data analysis showed that there was a significant difference in motility ( $P < 0.05$ ). The highest motility in the SBE + VCO 1% treatment was  $32.14 \pm 3.93\%$ . The addition of VCO and VOO supplementation in the *direct swim up* sperm post-thawing medium had no significant effects on viability, abnormality, acrosomal integrity and *spermatozoa* membran integrity ( $P > 0.05$ ). The conclusion of this research was the addition of the VCO supplementation in the *direct swim up* medium had the best effect on *spermatozoa* motility.

Keywords: Virgin Coconut Oil, Virgin Olive Oil, Post-Thawing, *Direct swim up*, Quality of *Spermatozoa*.