

THE EFFECT OF THE ADDITION OF GREEN TEA EXTRACT (*Camellia sinensis*) IN SKIM MILK AND EGG YOLK DILUENT FOR QUALITY SAPUDI SHEEP SPERMATOZOA PRESERVED ON COLD TEMPERATURE

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ABSTRACT

The purpose of this study was to determine the effect and the best concentration of green tea extract in skim milk and egg yolk diluent for quality sapudi sheep spermatozoa. Motility, viability and intact plasma membrane were measured in spermatozoa that were stored on cold temperature. The semen was divided into four groups; skim milk and egg yolk diluent, 0,5% green tea extract in skim milk and egg yolk diluent, 0,1% green tea extract in skim milk and egg yolk diluent, and 0,15% green tea extract in skim milk and egg yolk diluent. Spermatozoa quality was observed day 1, day 2, day 3, day 4 and day 5 after being diluted. The data obtained was analyzed with the Analysis of Variance (ANOVA), followed by multiple range test duncan. The results showed that the highest percentage of motility, viability and intact plasma membrane derived from green tea extract 0,15% on skim milk and egg yolk diluent for 1 day storage is $86.66^b \pm 2.58$, $92.00^b \pm 1.78$, and $74.16^b \pm 3.25$. The lowest percentage of motility, viability and intact plasma membranes was obtained from the skim milk and egg yolk diluent for 5 days storage is $43.33^a \pm 6.05$, $56.50^a \pm 3.08$ and $28.33^a \pm 2.80$. The conclusion of this study is the addition of 0.15% green tea extract in a skim milk and egg yolk diluent can maintain the quality of sperm for up to 5 days of storage at cold temperatures.

Keywords : Skim milk and egg yolk, green tea extract, sperm quality, Sapudi sheep