THE INFLUENCE OF ADDITION OF GREEN TEA (*Camellia sinensis*) EXTRACT IN DILUENT SKIM MILK FOR SPERM QUALITY SHEEP SAPUDI STORED AT A COOL TEMPERATURE

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ABSTRACT

The purpose of this study was to determine the effect and the best concentrasion of green tea extract in skim milk diluent for motility, viability, and intact plasma membrane Sapudi sheep spermatozoa that was stored 5^0C. The semen was divided into four groups: skim milk diluent; 0,05 mg green tea extract in skim milk diluent; 0,10 mg green tea in skim milk diluent and 0,15 mg green tea extract in skim milk diluent. Spermatozoa quality was observed first day until fifth day after diluent. The data obtained was analyzed with the analysis of variance *one way* ANOVA. The result showed that the percentage of motility, viability and intact plasma membrane spermatozoa at the 5th day after diluent showed a significant differece ($p<0,05$) between 0,05 mg green tea extract in skim milk diluent; 0,10 mg green tea in skim milk diluent and 0,15 mg green tea extract in skim milk diluent. Motility at the 3th day after diluent respectively $46,67^{b} \pm 2,582$; $43,33^{bc} \pm 4,028$; $40,00^{ab} \pm 3,162$; and $37,50^{a} \pm 2,739$. Viability at the 3th day after diluent respectively are $79,50^{b} \pm 1,643$; $77,67^{b} \pm 3,327$; $77,00^{ab} \pm 3,230$; and $73,83^{a} \pm 3,061$. Intact plasma membrane at the 3th day after diluent respectively are $50,17^{b} \pm 2,483$; $47,00^{ab} \pm 3,899$; $46,83^{ab} \pm 2,858$; and $46,00^{a} \pm 3,286$. The conclusion of this study was the green tea extract of 0,05 mg in milk skim diluent could increase the percentage of sperm quality until 5th day after diluent.

Keywords : milk skim, green tea extract, sperm quality, Sapudi sheep