

**THE INFLUENCE OF ADDITION VARIOUS TYPE OF FRUITS
JUICE IN SKIM MILK DILUENT FOR QUALITY
SPERM SAPUDI SHEEP STORED AT COOL
TEMPERATURE (5°C)**

Ayun Tria Marga Retta

ABSTRACT

The purpose of this study was to determine the effect of addition various type of fruits juice in skim milk diluent for motility, viability, and intact plasma membrane sperm Sapudi sheep stored at cool temperature (5°C). The treatments are skim milk diluent as control (P0), 20% cherry tomato juice in skim milk diluent (P1), 20% California papaya juice in skim milk diluent, 20% honey melon juice in skim milk diluent. Spermatozoa quality was observed first day until fifth day after diluent. The data obtained was analyzed with analysis of variance (ANOVA), followed by multiple range test Duncan. The result showed that percentage of motility, viability and intact plasma membrane spermatozoa on fourth days after diluent showed a significant difference ($p < 0.05$) between 20% cherry tomato juice, 20% California papaya juice and 20% honey melon juice. Motility on fourth days after diluent respectively are $18,00 \pm 5,70$, $33,00 \pm 5,70$, $38,00 \pm 7,58$, and $19,00 \pm 9,61$. Viability on fourth days after diluent respectively are $43,00 \pm 5,56$, $56,40 \pm 5,89$, $60,60 \pm 6,22$, and $45,40 \pm 9,37$. Intact plasma membrane on fourth days after diluent respectively are $23,60 \pm 4,09$, $28,60 \pm 3,13$, $30,40 \pm 4,50$ and $24,80 \pm 3,34$. The conclusion of this study was the addition of 20% California papaya juice in skim milk diluent could increase percentage of sperm quality until fourth days after diluent.

Keywords: skim milk, Sapudi sheep, sperm quality, fruits juice.