

# **SKRIPSI**

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PENGECER KUNING TELUR SITRAT TERHADAP  
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## EXTRACT OF *ANNONA MURICATA* AS EGG YOLK CITRATE DILUENT SUBSTITUTE FOR FAT-TAILED SHEEP SPERM QUALITY

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### ABSTRACT

The selection of type for diluent on semen is an important aspect in the implementation of artificial insemination in order to increase the reproductive efficiency of fat-tailed sheep. This study was aimed to determine the effect of soursop (*Annona muricata*) extract as egg yolk citrate diluent substitute for fat-tailed sheep sperm quality. The results were obtained by using ANOVA (Analysis of Variance) continued with Duncan's multiple range test. Semen was divided into four diluents treatment, 1:4 egg yolk citrate (EYC), 1:1 EYC:soursop, 1:2 EYC:soursop, and 1:4 soursop:citrate (SC). The results showed that the percentage of sperm viability on the fifth day showed a significant difference ( $p < 0.05$ ) that EYC ( $34.91 \pm 1.792$ ) against EYC soursop 1:1 ( $43.71 \pm 1.615$ ), EYC:soursop 1:2 ( $46.28 \pm 1.569$ ), and SC ( $31.34 \pm 0.727$ ). So did the percentage of motility on the fifth day 1:2 EYC soursop, 1:1 EYC soursop, EYC, and SC, respectively is  $41.71 \pm 1.112$ ,  $40.00 \pm 1.290$ ,  $32.91 \pm 1.754$  and  $29.31 \pm 0.999$  with a significant difference ( $p < 0.05$ ) in each treatment. The percentage of plasma membrane integrity in EYC at  $32.91 \pm 1.754$  significantly different from the other treatments that 1:1 EYC soursop ( $41.51 \pm 1.672$ ), 1:2 EYC soursop ( $44.17 \pm 1.348$ ), and SC ( $29.31 \pm 0.999$ ). The conclusion of this study was the EYC, 1:1 EYC:soursop and 1:2 EYC soursop could increase the percentage of sperm quality until the fifth day with the highest percentage yield on 1:2 EYC:soursop.

**Key words** : fat-tailed sheep, egg yolk citrate, soursop (*Annona muricata*), sperm quality