

THE ADDITION OF A COMBINATION OF VITAMIN C AND VITAMIN B12 IN SKIM MILK-EGG YOLK DILUTER TOWARD PERCENTAGE OF MEMBRANE INTEGRITY AND ABNORMALITY OF SAPUDI RAMS SPERM *POST THAWING*

Alif Luqman Hakim Ibnu Ali

ABSTRACT

The research was conducted to determine the effect of addition of combination of vitamin C and vitamin B12 in skim milk-egg yolk diluter toward percentage of membrane integrity and abnormality of Sapudi rams sperm *post thawing*. Semen was collected using artificial vagina from a mature Sapudi rams. Fresh semen was divided into four treatments and diluted with skim milk-egg yolk. Control treatment (P0) semen without the addition of vitamin, first treatment (P1) semen plus vitamin C (0,2 mg/ml), second treatment (P2) semen plus vitamin B12 (5 µg/ml), and third treatment (P3) semen plus vitamin C (0,2 mg/ml) and B12 (5 µg/ml). The experiment design using Randomized Block Design with 6 replications. The data was analyzed by ANOVA then proceed to Duncan order to determine significant differences between treatments. The evaluation of the integrity of sperm membrane showed that P3 significantly was higher than P0 ($P < 0.05$) but did not differ significantly compared to P1 and P2 ($P > 0.05$). The evaluation of sperm abnormalities showed that P3 had the lowest percentage of abnormality but no significant difference ($P > 0.05$) between treatments. The results showed that the addition of a combination of vitamin C and vitamin B12 can keep the percentage of sperm membrane integrity but does not reduce the percentage of sperm abnormalities of Sapudi rams post thawing.

Key words: vitamin C, vitamin B12, membrane integrity sperm, abnormality sperm, Sapudi rams