ABSTRACT

The purpose of this research was determine the effect and the best concentration of green tea extract in egg yolk citrate diluent for quality Sapudi sheep spermatozoa were measured in motility, viability and intact plasma membrane that was stored on cold temperature. The semen was divided into four groups: egg yolk citrate diluent, 0.05% green tea extract in egg yolk citrate diluent, 0.1% green tea extract in egg yolk citrate diluent and 0.15% green tea extract in egg yolk citrate diluent. Spermatozoa quality was observed day 1, day 2, day 3, day 4 and day 5 after diluent. The data obtained was analyzed with the analysis of variance (ANOVA), followed by multiple range test duncan. The result showed that the highest percentage of motility, viability and intact plasma membrane were obtained from 0.05% green tea extract in egg yolk citrate diluent for 1 day of storage which were 85.83 ± 3.76, 91.16 ± 2.13 and 66.83 ± 6.49. The lowest percentage of motility, viability and intact plasma membrane were obtained from egg yolk citrate diluent for 5 day of storage which were 26.66 ± 6.05, 49.16 ± 6.43 and 26.66 ± 4.32. Conclusion of this research was the addition of 0.05% green tea extract can be used as a diluent could maintain the percentage of spermatozoa quality until 5 days after diluent.

Keyword: egg yolk citrate, green tea extract, spermatozoa quality, sapudi sheep