

**EFFECT OF PEEL AND FLESH EXTRACT OF WATERMELON
(*Citrullus lanatus*) AS DILUTER ON MOTILITY AND VIABILITY
OF RAM SPERMATOZOA**

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ABSTRACT

Aim of this research was to study the effect of peel and flesh of watermelon as diluter on motility and viability of ram spermatozoa. There were three treatments: 1) KTS= egg yolk citrate; 2) BSS= watermelon flesh extract citrate; 3) P3= watermelon peel extract citrate. Each treatments were stored at 5oC and observed for five level of storage time, which were day 1, day 2, day 3, day 4, and day 5. Data were analysed using completely randomised design with factorial pattern 3x5 followed by duncan multiple range test if there were significant differences ($P<0.05$). Result showed there was interaction between treatments and storage times which were significantly different ($P<0,05$) towards motility and viability of spermatozoa. The highest percentage of motility and viability were obtained from BSS for 1 day of storage which were $76.25\pm 4.787\%$ and $82.75\pm 3.304\%$. The lowest percentage of motility and viability were obtained from KSS for 5 days of storage which were $23.75\pm 2.062\%$ and $31.75\pm 2.363\%$. From the overall storage time, the average spermatozoa motility and viability's percentage of KTS showed the best result which were $58.00\pm 13.183\%$ and $66.00\pm 10.959\%$. Conclusion of this research was the extract of watermelon peel and flesh can be used as a diluter only for four days of storage time. Therefore addition of other substance which can protect spermatozoa from cold shock was needed to extend storage time more than four days.

Keywords: ram semen, motility, viability, watermelon