THE SUPLEMENTATION OF MELON JUICE IN RINGER'S - YOLK EGG DILUTER TOWARD THE INTEGRITY OF MEMBRANE PLASMA AND THE ABNORMALITY MORPHOLOGY SPERMATOZOA OF LOCAL CHICKEN

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ABSTRACT

This research aimed to know the integrity of plasma membrane percentage differences and abnormality of spermatozoa morphology of *Gallus domesticus* in Ringer's – yolk egg diluter supplemented with various doses of melon *(Cucumis melo L.)* juice. This research was conducted using two local chickens of 1,5-year-old, divided into four treatment groups. The semen from local chicken (Gallus domesticus) was taken by massage method every morning

The Treatment groups were P0 (Ringer's – yolk egg diluter), P1 (Ringer's – yolk egg diluter + 2% of melon juice), P2 (Ringer's – yolk egg diluter + 4% of melon juice), P3 (Ringers – yolk egg diluter + 8% of melon juice). The obtained data were analyzed using MANOVA test and Tukkey HSD test. The result showed there was a significant difference ($p>0.05$) between each treatment group for the integrity of plasma membrane percentage differences. However, the abnormality of spermatozoa morphology didn't show any significance. In conclusion, this research revealed that melon *(Cucumis melo L.)* juice can maintain the integrity of plasma membrane percentage showed on treatment group of P3 better than P1 and P2. Meanwhile, melon *(Cucumis melo L.)* juice did not show the ability to decrease the abnormality of spermatozoa morphology.

Keywords: local chicken, melon juice, spermatozoa, membrane plasma integrity, spermatozoa morphology abnormality