

**PENGARUH PENAMBAHAN MINYAK IKAN DALAM PENGENCER
SUSU SKIM KUNING TELUR TERHADAP MOTILITAS DAN
VIABILITAS SPERMATOZOA SAPI
PERANAKAN ONGOLE**

Oleh :

Muhammad Fatkhurohman
20/457307/SV/17754

INTISARI

Penyimpanan semen dapat berdampak pada kerusakan membran spermatozoa akibat stres oksidatif. Suplementasi minyak ikan dalam media semen beku diharapkan dapat mempertahankan motilitas individu dan viabilitas semen cair yang disimpan selama 20 jam. Kerusakan membran spermatozoa dapat mempengaruhi kualitas semen beku. Lebih lanjut kerusakan membran menyebabkan proses metabolisme intraseluler terganggu, yang mengakibatkan spermatozoa menjadi lemah dan mati. Penelitian ini bertujuan mengkaji efektivitas suplementasi minyak ikan dalam pengencer semen beku terhadap motilitas dan viabilitas sperma sapi peranakan ongole (PO). Suplementasi minyak ikan diberikan dengan empat kelompok perlakuan yaitu kontrol P1 (0 mg), perlakuan P2 (80 mg), P3 (100 mg) dan P4 (120 mg) dalam 100 ml pengencer. Data dianalisis dengan metode *one way analysis of variance (ANOVA)* dilanjutkan dengan *tukey's multiple comparison test*. Data yang diperoleh disajikan dengan *mean ± SD* dan signifikan pada $P < 0.05$. Hasil penelitian diperoleh menunjukkan 73.33 % motilitas terbaik pada penambahan 120 mg dan viabilitas terbaik 77.33 % pada penambahan 120 mg minyak ikan. Berdasarkan beberapa hasil tersebut dapat disimpulkan bahwa penambahan minyak ikan dapat mempertahankan motilitas dan viabilitas spermatozoa serta menekan kerusakan membran spermatozoa selama proses penyimpanan.

Kata Kunci : minyak ikan, pengencer , peranakan ongole, semen cair

**THE EFFECT ADDING FISH OIL INTO SKIM MILK-EGG YOLK
EXTENDER ON THE SPERM MOTILITY AND VIABILITY OF
PERANAKAN ONGOLE CATTLE**

By :

Muhammad Fatkhurohman
20/457307/SV/17754

ABSTRACT

Semen storage can affect the damage of spermatozoa caused by oxidation stress. The supplement of fish oil in medium freezing semen is expected to maintain individual motility and the liquid cement viability stored for 20 hours. Damage to the sperm membrane can affect the quality of the frozen semen. Further deterioration of the membranes caused an intracellular metabolism to be disrupted, causing the sperm to become weak and die. The study aims at assessing the effectiveness of fish oils in frozen semen extender of motility and viability of Ongole Grade Cattle. Supplementary fish oil is provided with four treatment groups of P1 control (0 mg), treatment of P2 (80 mg), P3 (100 mg) and P4 (120 mg) 100 ml of extender. Data analyzed by the method one way analysis of variance (ANOVA) continues with tukey's multiple tests. Data obtained is served with the mean application of \pm SD and significant at $P < 0.05$. Research results show 73.33 % of motility at best to add 120 mg and viability at 77.33 % to the addition of 120 mg of fish oil. Based on some of these results, it could be concluded that adding oil to fish retained motility and viability for spermatozoa and suppress the ruptures of spermatozoa during the storage process.

Keywords: fish oil, extender, peranakan ongole cattle, liquid sperm