

## **ABSTRAK**

### **PENGARUH PENAMBAHAN VITAMIN C, VITAMIN E DAN L-CARNITINE DALAM PENGECER TRIS KUNING TELUR TERHADAP KUALITAS SEMEN CAIR DOMBA EKOR TIPIS**

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Penelitian ini bertujuan untuk mengetahui pengaruh penambahan vitamin C, vitamin E, dan L-carnitine dalam pengencer tris kuning telur terhadap kualitas semen cair Domba Ekor Tipis. Penelitian ini dilaksanakan pada Desember 2023 bertempat di Jurusan Peternakan Fakultas Pertanian Universitas Lampung. Metode penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 4 ulangan. Perlakuannya yaitu P0 (kontrol), P1 (penambahan Vitamin C 500 mg/100 ml pengencer), P2 (penambahan Vitamin E 500 mg/100 ml pengencer), P3 (penambahan L- carnitine 0,60 mg/100 ml pengencer). Data yang diperoleh dianalisis ragam dengan taraf 5% dan diuji lanjut dengan uji Beda Nyata Terkecil (BNT). Hasil penelitian menunjukkan bahwa, penambahan Vitamin C, Vitamin E dan L-Carnitine dalam pengencer tris kuning telur pada semen Domba Ekor Tipis tidak berpengaruh nyata ( $P>0,05$ ) terhadap motilitas, viabilitas dan abnormalitas spermatozoa pascapengenceran. Penambahan Vitamin C, Vitamin E dan L-Carnitine dalam pengencer tris kuning telur berpengaruh nyata ( $P<0,05$ ) terhadap motilitas spermatozoa setelah 3 jam penyimpanan, namun tidak berpengaruh nyata ( $P>0,05$ ) terhadap viabilitas dan abnormalitas spermatozoa setelah 3 jam penyimpanan. Pengenceran semen Domba Ekor Tipis dengan tris kuning telur tanpa penambahan vitamin C, Vitamin E, dan L-Carnitine menghasilkan motilitas paling tinggi pada 3 jam penyimpanan.

Kata kunci : Domba Ekor Tipis, Kualitas semen, L-Carnitine, Pengencer, Vitamin C, Vitamin E.

## **ABSTRACT**

### **THE EFFECT OF ADDING VITAMIN C, VITAMIN E AND L-CARNITINE IN EGG YOLK TRIS DILUENT ON THE QUALITY OF LIQUID SEMEN OF THIN TAIL SHEEP**

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This study aims to determine the effect of adding vitamin C, vitamin E, and L-carnitine to the Tris egg yolk diluent on the quality of thin-tailed sheep liquid semen. This research was carried out in December 2023 at the Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. The research method used was a Completely Randomized Design (CRD) with 4 treatments and 4 replications. The treatments were P0 (control), P1 (addition of Vitamin C 500 mg/100 ml diluent), P2 (addition of Vitamin E 500 mg/100 ml diluent), P3 (addition of L-carnitine 0.60 mg/100 ml diluent). The data obtained was analyzed for variance at a level of 5% and tested further with the Least Significant Difference (LSD) test. The results showed that the addition of Vitamin C, Vitamin E and L-Carnitine in the Tris egg yolk diluent in Thin-tailed Sheep semen had no significant effect ( $P>0.05$ ) on post-dilution motility, viability and abnormalities. The addition of Vitamin C, Vitamin E and L-Carnitine in Tris egg yolk diluent had a significant effect ( $P<0.05$ ) on motility after 3 hours of storage, but had no significant effect ( $P>0.05$ ) on viability and abnormalities after 3 hours of storage. . Dilution of Thin Tail Sheep semen with Tris egg yolk without the addition of vitamin C, Vitamin E, and L-Carnitine resulted in the highest motility at 3 hours of storage.

**Keywords :** Diluent, L-carnitine, Semen quality, Thin Tail Sheep, Vitamin C, Vitamin E.