ABSTRAK

PENGARUH PENAMBAHAN VITAMIN C DAN E DALAM PENGENCER SITRAT KUNING TELUR TERHADAP KUALITAS SEMEN CAIR AYAM BANGKOK (*Gallus gallus domesticus*)

Oleh

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Penelitian ini bertujuan untuk mengetahui pengaruh penambahan Vitamin C, Vitamin E dan kombinasinya terhadap kualitas semen cair (motilitas, viabilitas dan abnormalitas) dalam pengencer sitrat kuning telur pada semen Ayam Bangkok. Penelitian ini dilaksakan pada Maret 2023 bertempat di Laboratorium Fisiologi dan Reproduksi Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Penelitian ini menggunakan Rancangan acak lengkap (RAL) dengan 4 perlakuan dan 3 ulangan. Perlakuannya adalah P0; kontrol, P1; penambahan Vitamin C 0,2 g/100 ml pengencer, P2; penambahan Vitamin E 0,41 g/100 ml pengencer, P3; penambahan Vitamin C 0,2 g/100 ml + Vitamin E 0,41 g/100 ml pengencer. Data yang diperoleh dianalisis ragam dengan taraf 5% dan/atau 1% dan diuji lanjut dengan uji BNT. Hasil penelitian menunjukkan bahwa penambahan vitamin C dan vitamin E dalam pengencer sitrat kuning telur berpengaruh sangat nyata ($P<0,01$) terhadap motilitas, berpengaruh nyata ($P<0,05$) terhadap viabilitas namun tidak berpengaruh nyata ($P>0,05$) terhadap abnormalitas pasca pengenceran dan tidak berpengaruh nyata ($P>0,05$) terhadap motilitas, viabilitas dan abnormalitas pada 3 jam penyimpnan. Pada perlakuan (P1) mempunyai kualitas terbaik dibandingkan dengan perlakuan lainnya dengan nilai motilitas (60,00±2,00%), viabilitas (80,79±0,99%) dan abnormalitas (10,00±0,95%) pada pasca pengenceran. Hasil penelitian dapat disimpulkan bahwa penambahan vitamin C 0,2 g/100 ml pengencer sitrat kuning telur memberikan pengaruh terbaik dalam mempertahankan motilitas dan viabilitas semen cair Ayam Bangkok pasca pengenceran.

Kata kunci: Ayam Bangkok, Sitrat kuning telur, Spermatozoa, Vitamin C, Vitamin E

ABSTRACT

THE EFFECT OF ADDITION VITAMIN C AND E IN EGG YOLK CITRATE DILUENT ON THE QUALITY OF LIQUID SEMEN BANGKOK CHICKEN (*Gallus gallus domesticus*)

By

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This study aimed to determine the effect of addition Vitamin C, Vitamin E and their combination on the quality of liquid semen (motility, viability and abnormality) in egg yolk citrate diluent in Bangkok chicken semen. This research was conducted in March 2023 at the Physiology and Reproduction Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. This study used a completely randomized design (CRD) with 4 treatments and 3 replications. The treatment is P0; control, P1; addition of Vitamin C 0.2 g/100 ml of diluent, P2; addition of Vitamin E 0.41 g/100 ml diluent, P3; addition of Vitamin C 0.2 g/100 ml + Vitamin E 0.41 g/100 ml diluent. The results obtained were analyzed for variance with a level of 5% and/or 1% then tested for the BNT test. The results showed that the addition of Vitamin C and Vitamin E in egg yolk citrate diluent had a very significant effect ($P<0,01$) on motility, significant effect ($P<0,05$) on viability but had no significant effect ($P>0,05$) on post-dilution abnormalities and had no significant effect ($P>0,05$) on motility, viability and abnormalities at 3 hours of storage. The treatment (P1) had the best quality compared to other treatments, with motility (60.00 ± 2.00%), viability (80.79 ± 0.99%) and abnormality (10, 00±0.95%) at post-dilution. The results of the study concluded that the addition of Vitamin C 0.2 g/100 ml of egg yolk citrate diluent had the best effect on maintaining the motility and viability of Bangkok chicken liquid semen post-dilution.

Keywords: Bangkok Chicken, Egg yolk citrate, Spermatozoa, Vitamin C, Vitamin E