

ABSTRAK

PENGARUH PENAMBAHAN EKSTRAK BUAH MENKGUDU (*Morinda Citrifolia* Linn) DALAM PENGECER TRIS KUNING TELUR TERHADAP KUALITAS SEMEN BEKU SAPI BALI

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Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak buah mengkudu dalam pengencer tris kuning telur terhadap kualitas semen beku sapi Bali. Penelitian ini dilaksanakan pada Mei 2025 di UPTD BIBD Provinsi Lampung. Semen yang digunakan berupa semen segar dari pejantan sapi Bali yang berumur 6 tahun. Penelitian ini dilakukan menggunakan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan 5 ulangan. Perlakuan yang diberikan yaitu P0: Pengencer tris kuning telur tanpa penambahan ekstrak mengkudu, P1: Pengencer TKT + ekstrak mengkudu 1% dalam 100 ml pengencer, P2: Pengencer TKT + ekstrak mengkudu 2% dalam 100 ml pengencer, P3: Pengencer TKT + ekstrak mengkudu 3% dalam 100 ml pengencer, P4: Pengencer TKT + ekstrak mengkudu 4% dalam 100 ml pengencer. Masing-masing perlakuan dilakukan pengulangan *straw* sebanyak empat kali. Parameter yang diamati meliputi motilitas, viabilitas, dan abnormalitas spermatozoa. Data yang diperoleh dianalisis menggunakan analisis ragam dan jika berpengaruh nyata dilakukan uji lanjut Uji Tukey HSD (*Honest Significant Difference*). Hasil analisis menunjukkan bahwa penambahan ekstrak buah mengkudu dalam pengencer memberikan pengaruh nyata ($P < 0,05$) terhadap motilitas setelah pengenceran, motilitas setelah ekuilibrasi, motilitas setelah pembekuan, viabilitas setelah pengenceran, viabilitas setelah ekuilibrasi, viabilitas setelah pembekuan dan abnormalitas setelah pengenceran, abnormalitas ekuilibrasi dan setelah pembekuan. Penambahan ekstrak mengkudu 1% menunjukkan nilai motilitas dan viabilitas lebih tinggi dibandingkan pemberian 2%, 3%, dan 4%.

Kata Kunci: ekstrak buah mengkudu, tris kuning telur, spermatozoa, sapi Bali.

ABSTRACT

EFFECT OF NONI FRUIT EXTRACT ADDITION IN EGG YOLK TRIS DILUENT ON FROZEN SEMEN QUALITY OF BALI CATTLE

By

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This study aims to determine the effect of adding noni fruit extract in the tris egg yolk extender on the quality of frozen Bali cattle semen. This study was conducted in May 2025 at the UPTD BIBD in Lampung Province. The semen used was fresh semen from a 6-year-old Bali bull. The research was carried out using a Completely Randomized Design (CRD) with 4 treatments and 5 replications. The treatments given were: P0: Tris egg yolk extender without the addition of noni extract, P1: TKT extender + 1% noni extract in 100 ml of extender, P2: TKT extender + 2% noni extract in 100 ml of extender, P3: TKT extender + 3% noni extract in 100 ml of extender, P4: TKT extender + 4% noni extract in 100 ml of extender. Each treatment was replicated four times per straw. The parameters observed included sperm motility, viability, and abnormality. The data obtained were analyzed using analysis of variance, and if there was a significant effect, further tests were conducted using Tukey's HSD (Honest Significant Difference) test. The analysis results showed that the addition of noni fruit extract in the extender had a significant effect ($P < 0.05$) on post-dilution motility, motility after equilibration, motility after freezing, post-dilution viability, viability after equilibration, viability after freezing, post-dilution abnormality, equilibration abnormality, and post-freezing abnormality. The addition of 1% noni extract showed higher values of motility and viability compared to the administration of 2%, 3%, and 4%.

Keywords: Bali cattle, Noni, Fruit extract, Tris egg yolk, Sperm.