

## **ABSTRAK**

### **KUALITAS SEMEN BEKU SAPI BRAHMAN DENGAN PENAMBAHAN VITAMIN C DAN E PADA BAHAN PENGECER SUSU SKIM**

**Oleh**

**FATMA NILAM SARI**

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan vitamin C dan E pada bahan pengencer susu skim terhadap kualitas semen beku sapi Brahman serta mengetahui perlakuan terbaik penambahan vitamin C dan E pada bahan pengencer susu skim. Penelitian ini dilaksanakan pada 23 Januari sampai 03 Februari 2023 di Laboratorium Unit Pelayanan Tekhnis Balai Inseminasi Buatan Daerah (UPTBIBD) Lampung Tengah. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 6 ulangan. Adapun perlakuan meliputi P0: Tanpa Penambahan vitamin C dan vitamin E; P1: Penambahan vitamin C sebanyak 250 mg/100 ml; P2: Penambahan vitamin E sebanyak 0,41 g/100 ml pengencer; dan P3: Penambahan kombinasi vitamin C sebanyak 250 mg/100 ml dan vitamin E sebanyak 0,41 g/100 ml pengencer. Data yang diperoleh di analisis ragam dengan taraf 5%. Hasil penelitian menunjukkan bahwa penambahan vitamin C dan vitamin E pada bahan pengencer susu skim tidak berbeda nyata ( $P > 0,05$ ) terhadap kualitas semen beku sapi Brahman. Rataan nilai motilitas secara berturut-turut (43,83%; 47,16%; 45,66%; 42,66%), presentase spermatozoa hidup secara berturut-turut (79,92%; 81,66%; 80,23%; 79,12%) dan abnormalitas secara berturut-turut (9,36%; 8,73%; 8,88%; 9,68%). Dapat disimpulkan bahwa penambahan vitamin C dan E dengan dosis masing-masing perlakuan pada bahan pengencer susu skim memberikan hasil yang sama dengan tanpa pemberian vitamin C dan E terhadap motilitas, persentase hidup dan abnormalitas spermatozoa semen beku sapi Brahman.

**Kata Kunci:** Sapi Brahman, Skim susu, Spermatozoa, Vitamin C, Vitamin E.

## **ABSTRACT**

### **Frozen Semen Quality of Brahman Cattle the Addition of Vitamin C and E in Skim Milk Diluents**

**By**

**Fatma Nilam Sari**

This study aims to determine the effect of the addition of vitamins C and E in skim milk diluents on the quality of frozen semen of Brahman cows and to determine the best treatment for the addition of vitamins C and E in skim milk diluents. This research was conducted from January 23 to February 03, 2022 at the Technical Service Unit Laboratory of the Regional Artificial Insemination Center (UPTBIBD) Central Lampung. This study used a completely randomized design (CRD) with 4 treatments and 6 replicates. The treatments include P0: Without the addition of vitamin C and vitamin E; P1: Addition of vitamin C as much as 0,25 g/100 ml; P2: Addition of vitamin E as much as 0.41 g/100 ml diluent; and P3: Addition of a combination of vitamin C as much as 0,25 g/100 ml and vitamin E as much as 0.41 g/100 ml diluent. The data obtained in the analysis of variance with a level of 5%. The results showed that the addition of vitamin C and vitamin E in skim milk diluent was not significantly different ( $P>0.05$ ) from Brahman cattle frozen semen quality. The average value of motility was (43.83%; 47.16%; 45.66%; 42.66%), percentage of live spermatozoa (79.92%; 81.66%; 80.23%; 79.12%) and abnormality (9.36%; 8.73%; 8.88%; 9.68%) respectively. It can be concluded that the addition of vitamins C and E at the dose of each treatment in skim milk diluent gives the same results on motility, percentage of live and abnormalities of frozen semen of Brahman cattle.

**Keywords:** Brahman Cattle, Vitamin C, Vitamin E, Skim milk, Spermatozoa.