

ABSTRAK

PENGARUH SUPLEMENTASI VITAMIN C, VITAMIN E, DAN KOMBINASINYA TERHADAP LEUKOSIT DAN DIFERENSIAL LEUKOSIT DARAH KAMBING JAWARANDU JANTAN

Oleh

Raihana Nabila

Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi vitamin C, vitamin E, dan kombinasi keduanya terhadap leukosit dan diferensial leukosit darah kambing Jawarandu jantan. Penelitian ini dilaksanakan pada tanggal 31 Januari--06 Maret 2025 di Sinau Farm, Desa Karangrejo, Kecamatan Metro Utara, Kabupaten Metro. Rancangan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 3 ulangan, menggunakan 12 ekor kambing Jawarandu jantan. Perlakuan yang diberikan pada penelitian ini yaitu P0: ransum basal tanpa suplementasi vitamin C dan E; P1: ransum basal + vitamin C 100 mg/ekor/hari; P2: ransum basal + vitamin E 50 IU/ekor/hari; dan P3: ransum basal + vitamin C 100 mg/ekor/hari + vitamin E 50 IU/ekor/hari. Pengambilan sampel darah dilakukan pada hari ke--28 di vena jugularis dan pemeriksaan sampel dilakukan di Laboratorium Pro Lab Veterinary, Sleman, Yogyakarta. Data yang diperoleh disajikan dalam bentuk tabulasi dan histogram kemudian dilakukan analisis deskriptif. Hasil penelitian menunjukkan bahwa suplementasi vitamin C tunggal (P1) dapat meningkatkan basofil, suplementasi vitamin E tunggal (P2) dapat meningkatkan neutrofil dan monosit, dan kombinasi kedua vitamin (P3) dapat meningkatkan limfosit dan eosinofil darah kambing Jawarandu jantan. Berdasarkan penelitian yang telah dilakukan disimpulkan bahwa memberikan vitamin C dengan dosis 100 mg/ekor/hari (P1) pada kambing Jawarandu jantan mampu mempertahankan leukosit dan diferensial leukosit darah kambing Jawarandu jantan secara optimal dibandingkan suplementasi vitamin E tunggal (P2) dan kombinasi kedua vitamin (P3).

Kata kunci: Vitamin C, Vitamin E, Leukosit, Diferensial leukosit, Kambing Jawarandu Jantan.

ABSTRACT

THE EFFECT OF VITAMIN C, VITAMIN E, AND THEIR COMBINATIONSUPPLEMENTATION ON LEUKOCYTES AND BLOOD LEUKOCYTES DIFFERENTIAL OF MALE JAWARANDU GOATS

By

Raihana Nabila

This study aimed to determine the effect of vitamin C, vitamin E, and a combination of both supplementation on leukocyte and leukocyte differential counts in the blood of male Jawarandu goats. This study was conducted from January 31 to March 6, 2025, at Sinau Farm, Karangrejo Village, Metro Utara District, Metro Regency. A completely randomized design (CRD) was used with four treatments and three replications, using 12 male Jawarandu goats. The treatments in this study were P0: basal ration without vitamin C and E supplementation; P1: basal ration + vitamin C 100 mg/head/day; P2: basal ration + vitamin E 50 IU/head/day; and P3: basal ration + vitamin C 100 mg/head/day + vitamin E 50 IU/head/day. Blood sampling was carried out on the 28th day in the jugular vein and sample examination was carried out at the Pro Lab Veterinary Laboratory, Sleman, Yogyakarta. The data obtained were presented in tabulation and histogram forms and then descriptive analysis was carried out. The results of the study showed that single vitamin C supplementation (P1) can increase basophils, single vitamin E supplementation (P2) can increase neutrophils and monocytes, and the combination of both vitamins (P3) can increase lymphocytes and eosinophils in the blood of male Jawarandu goats. Based on the research that has been done, it was concluded that providing vitamin C at a dose of 100 mg/head/day (P1) to male Jawarandu goats was able to maintain leukocytes and leukocyte differentials in the blood of male Jawarandu goats optimally compared to single vitamin E supplementation (P2) and the combination of both vitamins (P3).

Keywords: Vitamin C, Vitamin E, Leukocytes, Leukocyte Differential, Male Jawarandu Goats.