

ABSTRAK

WARNA KONJUNGATIVA, JUMLAH ERITROSIT, DAN KADAR HEMOGLOBIN PADA KAMBING SAPERA (*Capra aegagrus hircus*)

Arif Fajar Nugroho

20/461869/KH/10704

Kesehatan kambing dapat dievaluasi berdasarkan jumlah eritrosit dan kadar hemoglobin (Hb). Penentuan gambaran darah umumnya dilakukan di laboratorium oleh tenaga terlatih dengan biaya cukup mahal. Tujuan penelitian ini yaitu mengetahui rentang gradasi warna konjungtiva normal pada kambing.

Penelitian ini menggunakan 10 ekor kambing Sapera dewasa. Semua kambing diperiksa warna selaput lendir (konjungtiva, gingiva, dan vulva) secara klinis, diambil sampel darahnya, dan diperiksa jumlah eritrosit serta kadar Hb secara laboratoris. Hasil pemeriksaan laboratoris hematologi diinterpretasi berdasarkan nilai standar. Dokumentasi foto konjungtiva dianalisis nilai *Red*, *Green*, *Blue* (RGB) menggunakan *software imageJ*. Hasil analisis nilai RGB divisualisasikan menggunakan *software CorelDRAW*, sehingga diperoleh hasil rentang gradasi warna konjungtiva normal kambing Sapera.

Hasil penelitian didapatkan nilai RGB warna konjungtiva normal berdasar jumlah eritrosit sebesar 33 sampai 228, sedangkan berdasar kadar Hb sebesar 44 sampai 228. Disimpulkan bahwa konjungtiva dengan jumlah eritrosit dan kadar Hb, dalam rentang normal tidak selalu menunjukkan warna yang sama. Semakin gelap warna selaput lendir, maka nilai RGB semakin rendah.

Kata kunci: jumlah eritrosit, kadar hemoglobin, pemeriksaan klinis, warna konjungtiva

ABSTRACT

THE COLOR OF CONJUNCTIVA, THE NUMBER OF ERYTHROCYTES , AND HEMOGLOBIN CONCENTRATIONS IN SAPERA GOATS (*Capra aegagrus hircus*)

Arif Fajar Nugroho

20/461869/KH/10704

A goat's health can be evaluated based on the number of erythrocytes and hemoglobin (Hb) concentrations. Blood profiling is generally done in the laboratory by trained personnel at a fairly expensive cost. The purpose of this study was to determine the range of normal conjunctiva color gradations in goats with normal erythrocytes number and Hb concentration.

This study used a total of 10 adult Sapera goats. All goats were clinically examined for their mucous membrane colors (conjunctiva, gingiva, and vulva). The blood samples were taken and erythrocyte counts as well as Hb concentrations were examined in a laboratory. The results of hematological laboratory tests were interpreted based on standard values. Photos of conjunctiva were analyzed for Red, Green, Blue (RGB) values using *imageJ software*. The results of the RGB value analysis were visualized using *CorelDRAW software*, so that the results of normal conjunctiva color gradation range of Sapera goats were obtained.

The results showed that the RGB value of normal conjunctiva color based on the number of erythrocytes is 33 to 228, while for Hb levels, the values are ranged from 44 to 228. It can be concluded that the conjunctiva do not always show the same colour, even when the number of erythrocytes and Hb levels are within the normal range. The darker the color of the conjunctiva, the lower the RGB value.

Key words: clinical examination, conjunctiva color, hemoglobin concentration, the number of erythrocytes