# Investigation of hematological parameters for Black Boer goats [1]

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## Abstract

The aim of this study was to investigate the blood profile of Black Boer goats. The goats were selected for meat production purpose at Hengchun branch, Taiwan Livestock Research Institute. A total of twenty-nine Black Boer goats, 0.5 to 4 years of age, were used. And blood samples were collected in July (summer) and December (winter), respectively in 2014. Hematological values were determined by cell counter and capillary centrifugation; the serum biochemical values were analyzed by automatic analyzer. The erythrocyte, hemoglobin, hematocrit, mean corpuscular volume, mean corpuscular hemoglobin, mean corpuscular hemoglobin concentration, red blood cell, platelets, leukocytes, lymphocytes, monocytes and granulocytes were 15.988 ± 1.781 × $10^6$ /μL, 9.929 ± 1.059 g/dL, 28.529 ± 3.950%, 17.858 ± 1.701 fL, 6.231 ± 0.593 pg/cell, 35.178 ± 3.514%, 32.502 ± 1.750%, 3.828 ± 2.547 × $10^6$ /μL, 10.631 ± 2.790 × $10^3$ /μL, 66.383 ± 7.741%, 6.359 ± 1.159% and 27.259 ± 6.655%, respectively; the serum biochemical parameters of BUN, total cholesterol, total protein, albumin, creatinine, total bilirubin, calcium and phosphorus were 12.690 ± 2.129 mg/dL, 96.569 ± 22.098 mg/dL, 6.231 ± 0.666 g/dL, 3.140 ± 0.414 g/dL, 1.433 ± 0.345 mg/dL, 0.610 ± 0.283 mg/dL, 11.541 ± 1.098 mg/dL and 7.114 ± 1.469 mg/dL, respectively; and the albumin/globulin ratio was 1.079 ± 0.343. The activities of glutamic phosphate transaminase, alkaline phosphatase and amylase in goats blood were 12.931 ± 3.727 U/L, 290.07 ± 116.85 U/L and 38.966 ± 16.453 U/L, respectively. The hematological and serum biochemical values of Black Boer goats were affected ($P < 0.05$) by age, sex and season, respectively, with no interaction detectable among these three variables.

Key words: Black Boer goats, Hematology, Investigation.

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