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ESTROUS CYCLE LENGTH AND ASSOCIATED BLOOD PROFILE LEVEL IN SAANEN-ETTAWAH CROSSBREED

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The aim of the present study was to identify the hormonal and blood metabolite profiles of Saanen-Ettawah Cross-Breed Does (SECD) with Short Estrous Cycle (SEC) and Normal Estrous Cycle (NEC). The study was conducted on a total of eight SECD. The does were divided into two groups comprising of four animals each, according to the length of estrous cycle: SEC (<17 days) and NEC (17–19 days). The does were raised in a local farm located in Sleman, Yogyakarta. The blood sample was collected from the jugular vein in the morning before feeding. The blood collection was done in each phase of the estrous cycle. The steroid hormones were determined for estrogen and progesterone level in blood serum using hormonal kits. The blood chemistry profiles were determined for glucose, albumin, cholesterol, and urea using a Microlab 300 spectrophotometer. Estrous cycle length was determined by observing the vaginal epithelial cell using vaginal smear method, vaginal acidity and estrous symptom. The hormonal and blood biochemistry were compared between SECD with SEC and NEC using independent sample T-test method. The mean of glucose, albumin, cholesterol, blood urea, estrogen and progesterone level of does with SEC were 72.62±7.96 mg/dl, 3.68±0.59 mg/dl, 82.60±9.49 mg/dl, 0.64±7.33 mg/dl, 45.20±19.11 pg/ml and 0.09±0.06 ng/ml, respectively. While the mean glucose, albumin, cholesterol, blood urea level, estrogen and progesterone of does with NEC were 68.94±10.49 mg/dl, 4.08±0.41 mg/dl, 65.17±7.70 mg/dl, 48.63±6.56 mg/dl, 46.32±16.68 pg/ml and 0.2±0.15 ng/ml respectively. The results showed that there was a significant difference ($P < 0.05$) between albumin, cholesterol and progesterone levels in SECD with SEC and NEC. The comparison between each phase of estrous cycle was also done and showed that were significant difference levels in each phase of the estrous cycle between SEC and NEC. The data showed significant difference of SEC and NEC ($P < 0.05$) in glucose level in proestrus, albumin level in metestrus and proestrus, cholesterol level in estrous, metestrus and proestrus and some data showed significant difference in each phase of estrous cycle using ANOVA method. In conclusion, there was significant difference in some blood profile and hormonal between SEC and NEC does.

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