

ABSTRACT

STUDY OF RESPIRATION AND PULSE RATE ON SIMPO CATTLE IN YOGYAKARTA

Faundra Faridz Ghozali
08/269200/KH/6007

Simpocattle resulted from cross breeding between Simental and Peranakan Ongole/PO cattle were widely cultivated as beef cattle in Yogyakarta. Until now there were no reports of respiratory and pulse rate data on Simpo cattle. Respiration and pulse rate were used as reference to determine the animal health status. This study was aim to determine the respiration and pulse rate on healthy Simpo cattle in Yogyakarta.

Fifteen (15) female adult healthy Simpo cattle aged 3 - 5 years old were used in this study. Cattle were housed at The Laboratory of Beef Cattle, Faculty of Animal Husbandry Gadjah Mada University. Cattle keep in solitary barn with grass as basal feed and drinking water given ad libitum. Measurement data done by calculating the frequency of respiratory airflow from the nose for one minute and the data pulse by palpating the coccygeal artery on the base of the tail for one minute. Data respiration and pulse measured on every Saturday and Sunday at 6 AM, 12 AM and 4 PM. Each measurement done for 3 times, then averaged. Air temperature and humidity were recorded as secondary data. Data were compared between the temperature in the morning, noon and afternoon, and then statistically analyzed by Analysis of Variance (ANOVA).

The results obtained of Simpo cattle respiratory data in the morning were 11 - 39 x/minute with an average of 23 x/minute, at noon 17 - 37 x/minute with an average of 27 x/minute and in the afternoon 18 - 41 x/minute with an average of 27 x/minute. Data pulse of Simpo cattle in the morning ranged 31 - 56 x/minute with an average of 45 x/minute, at noon ranged 36 - 57 x/minute with an average of 48 x/minute and afternoon ranges from 33 - 55 x/minutes with an average of 47 x/minute. Statistically analysis of respiration and pulse rate in the morning, noon and afternoon showed no significant differences ($P > 0.05$), and so there were no correlation between temperature and humidity on respiration and pulse rate.

Based on the research results, it can be concluded that the respiration rate of Simpo cattle were 11 - 41 x/minute with an average of 25 ± 8 x/minute and pulse rate were 31 - 57 x/minute with an average of 47 ± 7 x/minute. There were no significant differences ($P > 0,05$) from the effects of temperature and humidity in the morning, noon and afternoon on respiration and pulse rate. It need further research with more samples, sex and age variation for a better results.

Keywords : Simpo cattle, respiration rate, pulse, temperature, humidity